MADRAS Information

NOVEMBER 1956

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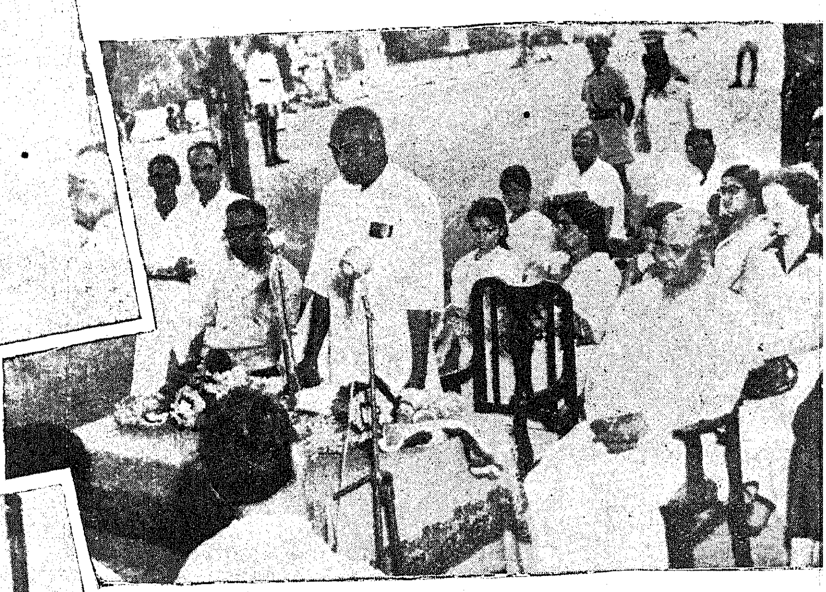
12 NOV 1956

MADRAS CELEBRATES GANDHI. JAYANTHI—



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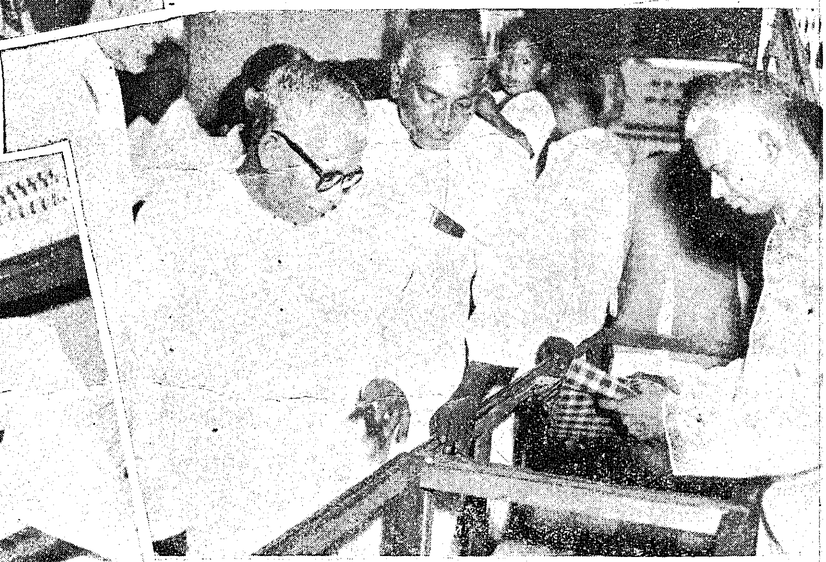
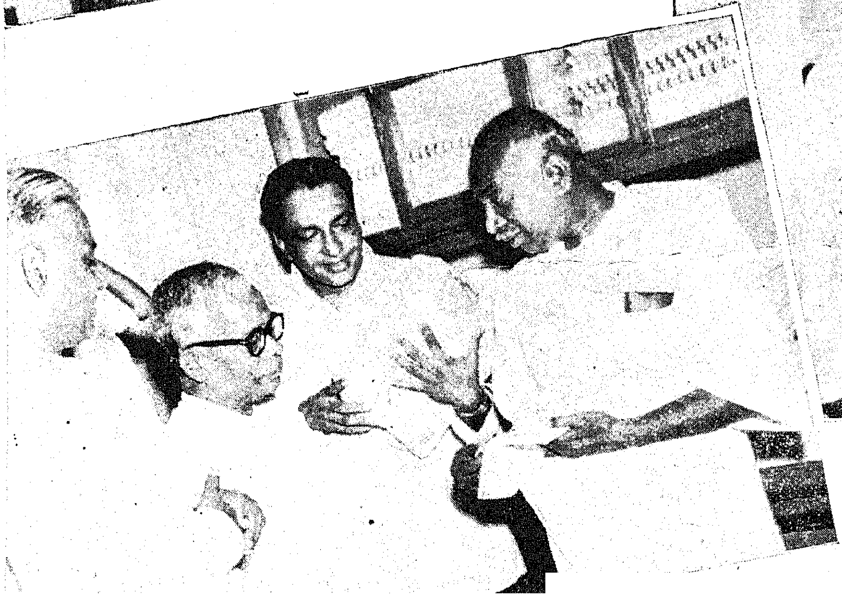
—BY PUSHING KHADI SALES

Another addition to the chain of Khadi sales emporia in the City was made when this Triplicane depot was opened.





Madras Information

12 NOV 1956
MADRAS

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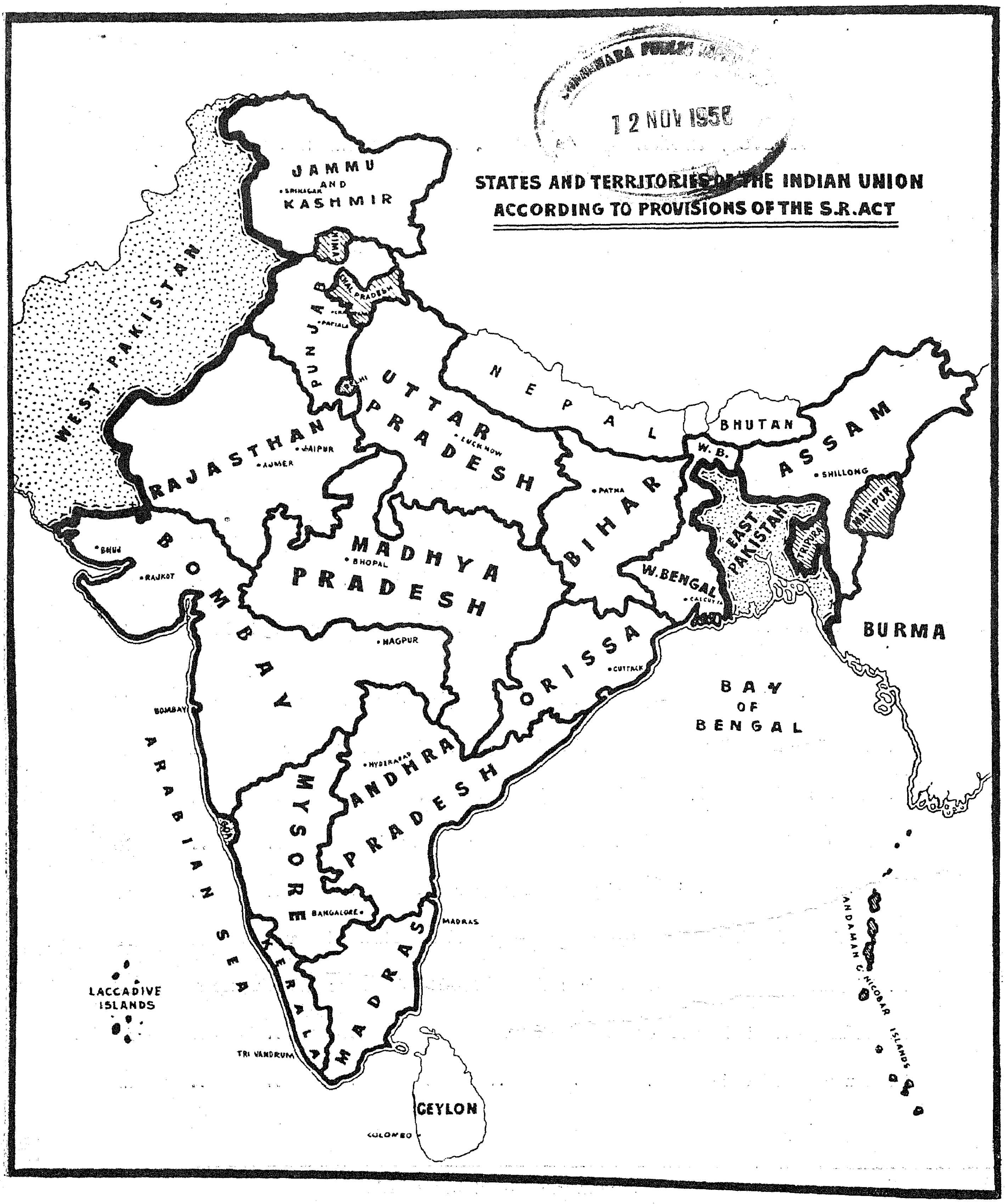
Cover Picture : Poised for the Pick.

NEW MAP OF INDIA 2



12 NOV 1956

Re-organization of States

12 NOV 1956

Chief Minister's Message

The re-organization of States is an important land-mark in the history of independent India. It has been proved once again that an abiding and just solution of the most knotty problems can be arrived at only by the democratic way. Let us put behind us the passions and suspicions that breed on all religious or linguistic differences. In the days that are ahead of us we will be called upon to show even greater courage and faith.

Madras, as a result of the changes that have happened during the last few years, has become progressively smaller in area. But I have no doubt that its contribution to the progress of the Nation will be as great as ever.

October 31, 1956.

Chief Minister.

12 NOV 1958

Gateway to Prosperity in Arcot districts—Sathanur Project

The Main Canal of the Sathanur Project which is to irrigate the semiarid lands of South and North Arcot districts was opened on Oct. 30, 1956, within 2 years of starting work on the Project. By a judicious combination of men and material resources, the Project is expected to be completed a year ahead of schedule, in 1957.

The river "Ponniar" rises in the south-eastern slopes of the Channakesava hills of Mysore State, where it is known as the Dakshina Pinakini. After a run of fifty-three miles in that State, the river enters Madras State and flows through the Salem district for a length of 110 miles. Further, the river courses through North Arcot district for 21 miles and the remaining 76 miles length of the river, till its infall into the sea lies in South Arcot district. The river has many small tributaries.

Existing Irrigation

The river drains 5,000 square miles of area fed by both the south-west and north-east monsoons, the upper belt getting more rain from the first and the lower from the second. Owing to the irregular distribution of rainfall, the river flows are typically flashy. Severe floods had occurred in 1903, 1913 and 1943. The unsteady river flow has been so far made available for irrigation largely through open head channel taking off from anicuts at various points along its entire course. The four important anicuts are (i) Aliyalam in Salem district (218 acres), (2) Nedungal in Salem district (4,500 acres), (3) Tirukkoilur in South Arcot district (22,012 acres), and (4) Ellis Choultry in South Arcot district (13,000 acres).

Of the three districts in Madras State, through which the Ponniar flows, the North Arcot district is the most backward. Even in this district, the Chengam and the Tiruvannamalai taluks suffer most from water scarcity, the rest of the district being slightly better off because of the irrigation schemes like anicuts across the Palar and the Cheyyar rivers. Lower down in South Arcot district, irrigation facilities are better, though the existing wet ayacut has to be stabilised, and vast areas of cultivable land are available for extention of irrigation. A detailed study of the annual river flows at Nedungal anicut in Salem district and Tirukkoilur anicut in South Arcot district, has revealed the availability of water for storage in the proposed Sathanur reservoir without affecting existing irrigation interests.

The project was mooted as long back as 1904. Several investigations were undertaken and the reservoir scheme was modified from time to time, but lack of reliable data on river flows, considerations of financial return, priority for more attractive schemes elsewhere in the State, etc., caused the postponement of the project.

The post-war Grow More Food drive gave a fillip to the construction of the protective schemes like Sathanur Reservoir Project. Detailed investigations were taken up in 1946. The scheme was finalised in 1949 and the Government sanctioned the project for immediate execution.

The project comprises a 2,583-foot dam rising to a maximum height of 147 feet, a 400-foot anicut rising to a maximum of 20 feet and a 22-mile canal taking off from left side of the anicut for ensuring irrigation to 20,000 acres in the Madras State.

Location

The Sathanur Dam will be located in a narrow gap separating the Chinnapudi hills in the east from a corresponding low range of hills in the west in the Tiruvannamalai taluk. This gorge is about four miles south-west of the Sathanur village. The town of Tiruvannamalai, made famous by Ramana Maharashi, lies hardly 20 miles away. The dam site has many favourable features such as good rock at river bed for foundation, facilities for surplusing right over the proper and over a saddle a little removed to the right, easy accessibility, availability of necessary construction materials within short leads and above, all, the reservoir would cover only scrub jungle and reserve forest, entailing no submersion of valuable lands and consequent hardship to land owners.

The margins and adjacent country below the dam are rocky and rugged for a considerable distance and a direct off-take from the Reservoir for the Irrigation canal is not, therefore, feasible—it would involve tunnelling, deep cuttings and side walling for three to four miles. Water from the Sathanur reservoir will, therefore, be let down into the river and easily picked up lower down by anicut for diversion into the Main Canal through a head sluice. From three sites of the anicut the lowest and best has been chosen. It is about a mile upstream of the Olagalapady Causeway on the Tiruvannamalai-Thanipadi Road and about 300 feet below the Koronogotti hills. There is sheet rock extending over the full width of the river here and projecting high pieces of rock on either side of the river margin. In this reach, the river is straight and conditions for locating the off-take are also favourable. The head sluice of the main canal is planned for the left side, about 300 feet away from the deep river course.

The total length of the Dam is to be 2,583 feet, comprising 1,400 feet of masonry dam and 1,183 feet of earth dam. The masonry dam contains a spillway section of 432 feet in length made up of nine spans 40 feet each and eight piers 9 feet thick in the middle, a non-spillway section of 290 feet on the left flank and 678 feet on the right flank. In addition to these, there will be a saddle with dykes on either side in the right flank of the reservoir for a length of 1,760 feet. In left flank of the non-overflow section there will be a river sluice of 5 vents, each 5 feet wide and 6 feet high. The dam will rise 135 feet above the deepest bed level, and 147 feet above the deepest foundation. 7,000,000 cubic feet masonry will go into the structure. The height of the shutters over the spillway will be 20 feet.

The Earth Dam.

The maximum height of the earth dam above the average ground level will be 55 feet. Filter work will be done on the rear slope to avoid erosion. The total volume of earthwork involved will be 6,000,000 cubic feet. Judicious combination of machinery and men is employed in the construction of the earth dam to secure the maximum economy and to provide employment for local people.

The 5 faced anicut, called the Ogee type, will be founded on good sheet rock in the river bed. It will run for 400 feet across the river and rise 20 feet above the deepest foundation. A 30-foot chank, the bye-wash, on the extreme right flank will block up a narrow valley between two hillocks. The body of the anicut will be made up of random rubble masonry with a reinforced concrete capping for the crest. The real face will be finished in chisel-dressed stone work.

Six sluices are provided in the anicut, to pass water for irrigation lower down and to serve as scouring sluices for passing off silt, accumulating behind the anicut.

Canal System.

The head sluice on the left of the anicut consists of 3 vents of 9 feet width and 5·6 feet height each, provided with screw gearing shutters. The vents will draw 400 cusecs water to feed the canal.

The distribution system comprises a 22-mile Main Canal and about 50 miles of distributories, including several cross-drainage works, two major aqueducts and bridges.

One of the important features of the canal system is that it runs through rugged and rocky country in the head reach and cuts through soil of doubtful impermeability. To obviate excessive losses through seepage, the canal up to its 8th mile would be lined with concrete. By such lining about 20 cusecs of water, enough to bring in an additional 1,000 acres under irrigation by the project are expected to be conserved.

Construction progress.

Head Works.—Since the laying of the foundation for the project in October 1954 by the State Chief Minister, Sri K. Kamaraj, rapid progress has been achieved. A modern colony to house the officers, staff and labourers engaged in the project was built up within the first year. All amenities like protected water-supply, electricity and sanitary facilities have also been provided. A project house for visitors, a hospital, an elementary school, a post office and a cafeteria have been constructed.

The bridge below the dam has been constructed to convey materials required for the right flank, even during floods. Earthwork excavation and rock blasting for the foundations of masonry dam have been completed, except for 170 feet in the left flank, and masonry work is in full swing. Erection of sluice liners has also been commenced so that water could be let down for irrigation as early as possible. Excavation of the cut-off trench in the earth dam portion has also been completed. This trench is an essential provision for collection and draining off the water that inevitably seeps through the earth dam from the reservoir, as otherwise it would spell disaster for the dam.

The year 1956–57 will be the peak year of construction and most of the project is expected to be completed by December 1957. Water is expected to be let out for irrigation in next October.

Pick-up Anicut.—The work on the weir consisting of 2 lakhs cubic feet of concrete and stone masonry was started in February this year and completed on May 12. The work on the head sluice is completed.

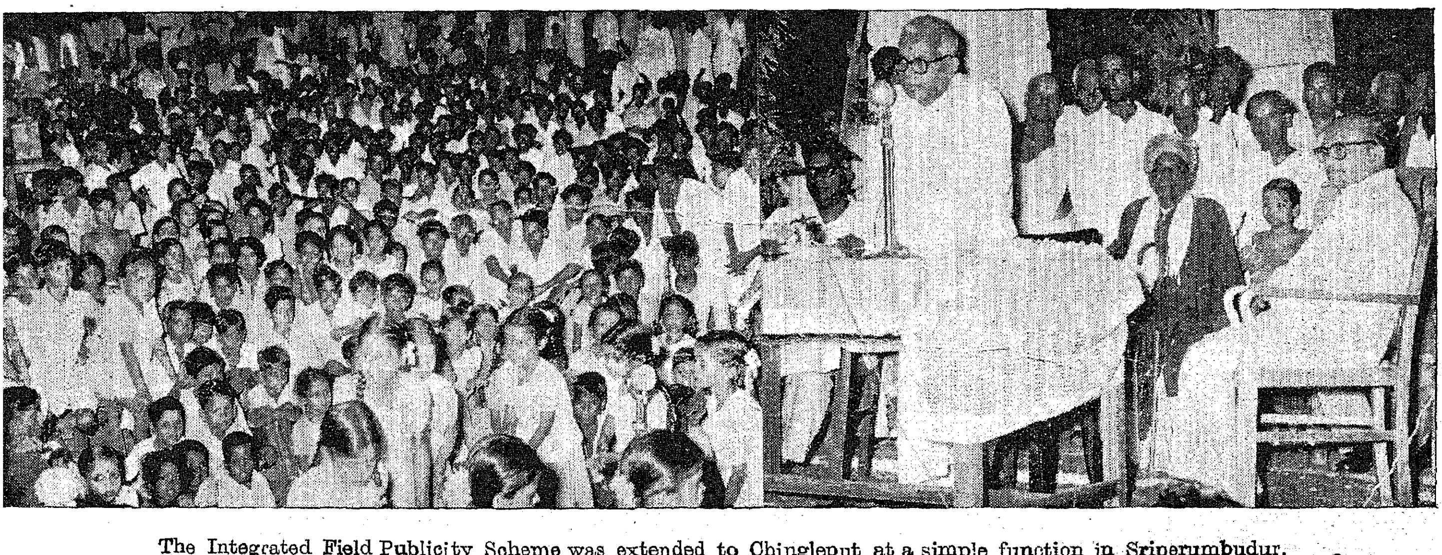
Canals.

The Main Canal work has been completed for 8 miles from the head, except for short lengths of deep cuts in the first and fourth mile. Of this reach 3 miles have already been concreted and lined. Beyond the eighth mile 70 per cent of the work has been done.

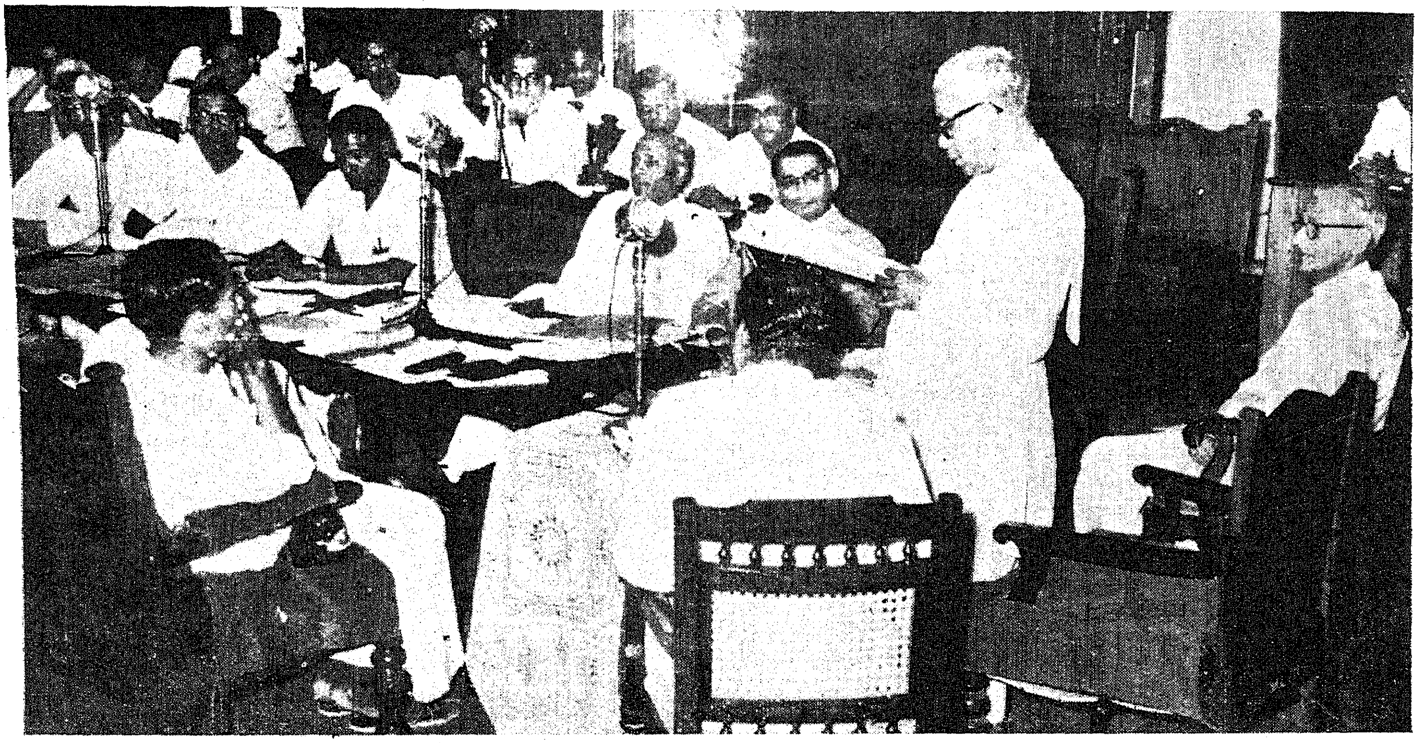
The current work progress promises irrigation supplies for the coming season itself for a sizeable area—that is within 18 months of the commencement of the Project.

All items of work in the Project are being executed departmentally with the help of job workers with a view to economising cost. The outstanding and unique feature about the execution

(*Continued on page* 31)



The Integrated Field Publicity Scheme was extended to Chingleput at a simple function in Sriperumbudur.



Sri M. Bhaktavatsalam inaugurating the State Labour Advisory Board.

On the Road to Integrated Industrial Democracy

The Progress of Labour Welfare Measures in Madras State

Address by the Chairman, Sri M. Bhaktavatsalam at the Sixth Meeting of the State Labour Advisory Board

With the advent of independence labour welfare has become the most important and essential part of social services and it has been given its due place in the directive principles of the Constitution. The need for a harmonious relationship between Capital and Labour is now being fully realised by the State, the workers and the employers.

In the labour policy adopted for the period of the First Five-Year Plan, greater emphasis was placed on the effective administration of existing labour laws. For the settlement of disputes joint consultation at different levels was proposed. Improvement in the real wages of the working class, implementation of social security schemes and improvement in working conditions in factories, plantations and mines were envisaged. The Government of India have since laid down the labour policy and programme to be adopted in the Second Five-Year Plan. In its essentials the labour policy and the approach to industrial relations outlined in the First Five-Year Plan will also hold good for the period of the second plan. The objectives of the second plan are the strengthening of the trade union movement, granting them representative character promotion of leadership from within and the training of workers in trade union philosophy and methods, settlement of disputes through mutual negotiations, conciliation and voluntary arbitration, effective implementation and enforcement of awards, increased association of labour with management, prevention of tendencies to violence and indecipline, a progressive wage policy with a view to accelerating progress towards fair wages, extension of the Provident Fund and Employees' State Insurance Schemes and enhancement of the rate of contribution to Provident Fund and regulation of working conditions in the construction and transport services. It has also been decided that schemes of rationalisation should be preceded by agreements between the parties and that the possibilities of providing additional employment to agricultural workers and the problems peculiar to women workers should receive adequate attention.

In this connection I may mention some important changes in Labour Legislation that have taken place since the last meeting of the Board. The Industrial Disputes (Amendment and Miscellaneous Provisions) Bill, 1955 to which I referred at the last meeting of the Board has since been passed into Law. This new Act has amended the definition of 'workman'

in the Industrial Disputes Act so as to include supervisory personnel whose emoluments do not exceed Rs. 500 per month. It also provides for expansion of the adjudication machinery by a three-tier system, *viz.*, Labour Courts, Industrial Tribunals and National Tribunals. The Industrial Disputes (Appellate Tribunal) Act of 1950 has been repealed and there is no provision now for appeal against the awards of Industrial Tribunals. It is therefore proposed to establish the Labour Courts and Tribunals with personnel of appropriate status and qualifications. Reference to the National Tribunals will be made by the Central Government and they will cover disputes which involve questions of national importance or which are of such a nature that establishments situated in more than one State are likely to be interested in or affected by the disputes.

Significant new provisions.

Another important provision introduced by the Act is that enabling voluntary reference of disputes to arbitration by the parties themselves by written agreement and for the enforcement of the agreements between employers and the workers reached other than in the course of conciliation. One other provision which, I consider, requires special mention is that relating to notice of change. No employer who proposes to effect any change in the conditions of service applicable to workers in respect of certain specified matters shall effect such a change without giving to the workmen concerned a notice in the prescribed manner. Certain amendments to the Industrial Employment (Standing Orders) Act have also been made in this Act. The Certifying Officer and the Appellate Authority have been empowered to take into account the fairness or reasonableness of the Standing Orders before certifying them. Besides the employers, the workmen also may now apply for the modification of standing orders.

Certain provisions of this important enactment have already been brought into force. The question of fixing suitable dates for bringing the other provisions also into force is under the active consideration of the Government of India. The question of suitably amending the Madras Industrial Disputes Rules consequent on the changes brought about in the Amendment Act is engaging the attention of the State Government.

Better deal for working journalists.

The Working Journalists (Conditions of Service and Miscellaneous Provisions) Act, 1955, has not only made the provisions of the Industrial Disputes Act applicable to working journalists but also provided for certain special matters such as payment of gratuity to working journalists, regulation of hours of work and leave, fixation of wages and the constitution of a Wage Board for the purpose. The officers of the Labour Department have been appointed as Conciliation officers under the Act for the areas within their respective jurisdiction. The provisions of the Industrial Employment (Standing Orders) Act 1946 now apply to every newspaper establishment wherein 20 or more newspaper employees are employed. Newspaper establishments which are already having standing orders have been asked to submit draft amendments to their existing standing orders so as to make the orders applicable to newspaper employees, and other newspaper establishments employing 20 or more workers have been asked to submit draft standing orders for certification. Similarly the Employees' Provident Fund Act has also been extended to cover newspaper establishments employing 20 or more persons.

The Government of India have constituted a Wage Board for fixing rates of wages in respect of Working journalists with a retired judge of the High Court of Bombay as its Chairman and with three representatives of employers and an equal number of representatives of working journalists.

The conciliation machinery set up under the Industrial Disputes Act has been striving hard to bring about settlements of industrial disputes and promote industrial peace. During the period from January 1956 to August 1956 as many as 202 industrial disputes were settled by conciliation and 126 disputes were referred for adjudication. In addition to the industrial disputes, the Labour Officers investigated into a very large number of individual complaints (6,140 cases) relating to dismissals and suspensions, wages, bonus, etc. Cases of retrenchment were reported in 18 establishments involving 426 workers during the eight months. In most of the cases retrenchment compensation has been paid to the workers. In cases where retrenchment compensation was not readily paid, the workers were advised to put in claim petitions under the provisions of the Industrial Disputes Act.

Important Conciliations.

Two important settlements brought about by conciliation which may be specially mentioned here are those relating to the industrial disputes in the T. I. Cycles Limited, Madras, and in the Textile Mills in the Coimbatore District. As you are aware the workers of the T. I. Cycles struck work in January 1956. After protracted and long discussions the management and the representatives of the workers came to a settlement through conciliation. A majority of the old workmen have been taken back into service. The other demands of the workers relating to wages, bonus, dearness allowance, etc., were also settled to the satisfaction of both the parties.

In the case of the Textile Mills in Coimbatore there was a long-standing dispute between the workmen and the managements regarding occupational nomenclature, work-loads, gradations, basic wages, differentiation in wages, production bonus, etc. A settlement was brought about during the last month by conciliation on all the outstanding matters except on the question of festival holidays and payment of increased wages with retrospective effect. The agreement is to be in force for a period of five years from 1st October 1956. Both the parties have also agreed that the question of bonus for the year 1955 should be referred for arbitration as was done in previous years. The Government have since constituted an Arbitration Board with the District Judge of Coimbatore as Chairman to decide this issue. It has since been brought to the notice of the Government that there is some opposition from workers of certain mills in accepting the higher work loads provided in the Agreement. The matter is receiving attention.

In addition to these important long-term settlements, two major disputes, one relating to the Madura Mills Limited, and the other relating to the Buckingham and Carnatic Mills Limited, Madras, were also amicably

settled by conciliation during the period under review.

Common Law for Motor Transport Workers.

The Standing Labour Committee at its session held in April 1956 recommended that there should be a Central Legislation to regulate the working conditions of Motor Transport workers and that draft proposals should be drawn up for consideration by a special committee to be constituted for the purpose. The Government of India have accordingly formulated tentative proposals with regard to the provisions to be included in the proposed legislation on the basis of the I.L.O. convention and suggestions received by them. These tentative proposals include provisions for regulating working hours, rest interval, spread-over, over-time, weekly-rest, welfare facilities, leave with wages and holidays, medical facilities, night work, retirement benefits and compensation for employment injuries. They will be first considered by a special committee as recommended by the Standing Labour Committee.

As provided for in Section 3 of the Minimum Wages Act, minimum rates of wages already fixed will have to be reviewed and refixed within a period of 5 years from the date on which the original rates of wages came into force. The minimum rates of wages were accordingly revised in the case of employments in (1) rice, flour and dhall mills, (2) oil mills and (3) tanneries and leather manufactories. Special Advisory Committees were constituted by the Government for the purpose of revision of minimum wages fixed for these employments. The committees for rice, flour and dhall mills and oil mills met twice and sent their recommendations to the Government. The committee for tanneries and leather manufactories held three meetings. Some of the members of this committee also visited a few important factories in Madras and North Arcot Districts. Two special meetings of the Minimum Wages State Advisory Board were also specially convened for considering the recommendations of the above advisory committees. The constitution of such committees to advise the Government in the matter of revision of minimum rates of wages for the other scheduled employments is under the consideration of the Government.

Social Security measures provided under the Employees State Insurance Fund Act are being progressively implemented. The Employees Provident Fund Act had been till recently benefiting the factory employees in six major industries. The Central Government have since extended the benefits of the Act so as to make them applicable to 17 other industries of which Matches, Sugar, Tea, Printing, Stoneware Pipes, Tiles, Heavy and Fine Chemicals, Non-edible vegetable and Animal fats are important in this State. The Employees State Insurance Scheme which provides for sickness, maternity and employment injury benefits are now in force in Coimbatore and Madras City and their suburbs. It has been decided that the Scheme should be brought into force in Madurai, Tuticorin and Ambasamudram. Preparatory work is going on in these places and it is hoped that the scheme will be inaugurated by the end of this month. The Government have also sanctioned the starting of State Insurance Dispensaries in these places.

Five inspectors have been appointed specially to enforce the provisions of the Plantation Labour Act and Rules in our State with their headquarters at Ootacamund, Coonoor, Pollachi, Yercaud and Kodaikanal. With a view to augmenting the existing staff the question of notifying some of the other officers of the Labour Department as Plantation Inspectors is under consideration. The Act contains provisions regarding health, welfare and other conditions of work of the plantation workers. I am sure that a strict enforcement of the provisions of the Act will bring about an improvement in the working conditions of these workers.

Progress of Industrial Housing.

As you are aware, both the Central and the State Governments are specially interested in Industrial Housing. The Sembium and Erukkanchery colonies the construction of which the State Government have undertaken with assistance from the Centre have made substantial progress. 342 houses at Sembium and 300 houses in Erukkanchery have been completely roofed and all the 936 tenements in both the colonies are expected to be completed before the end of March 1957. A provision of Rs. 92·5 lakhs has been made for industrial housing during the Second Five-Year Plan period. It has been decided that out of this provision a sum of Rs. 25 lakhs should be set apart for industrial housing co-operatives and that the balance of Rs. 67·5 lakhs should be utilised for schemes to be undertaken by the Government for the construction of tenements for private industrial workers. I am glad to state that many of the employers have come forward to donate lands for the construction of houses for their workers and proposals for finalising a programme for the construction of about 2,500 houses are under active consideration. In the current year it is proposed to start the construction of 500 houses under the scheme.

The Government of India have also provided a sum of Rs. 22 lakhs for housing plantation labour during the period of the Second Five-Year Plan. As you are aware it is obligatory for every employer in plantations to provide and maintain for every worker necessary housing accommodation and the Madras Plantations Labour Rules require the employers to build houses for accommodating at least 8 per cent of their resident workers every year. The provision made in the second five-year plan is to assist such of the employers as are not in a position to construct houses with their own resources in complying with the above statutory requirement. The Inspectors of Plantations and the Association of Planters have been advised to give wide publicity to the scheme. The constitution of an advisory board for dealing with the matters relating to the scheme is being considered.

On the successful working of the Labour Laws depends the development of our industries and improvement in production. Exchange of views and experiences of the various officers of the Labour and Factories Department would be useful in bettering the standard of administration. For this purpose the Government have been sanctioning the holding of departmental conferences. A conference of the officers of the Labour and Factories Department was held in May 1956. A number of improtant subjects relating to the administration of the Factories Act, Madras Shops and Establishments Act, the Industrial Disputes and other allied Labour Acts were discussed at that meeting.

I informed you at the last meeting that a special officer had been appointed to enquire into the conditions of workers in the beedi industry. The special

(*Continued on page* 30)

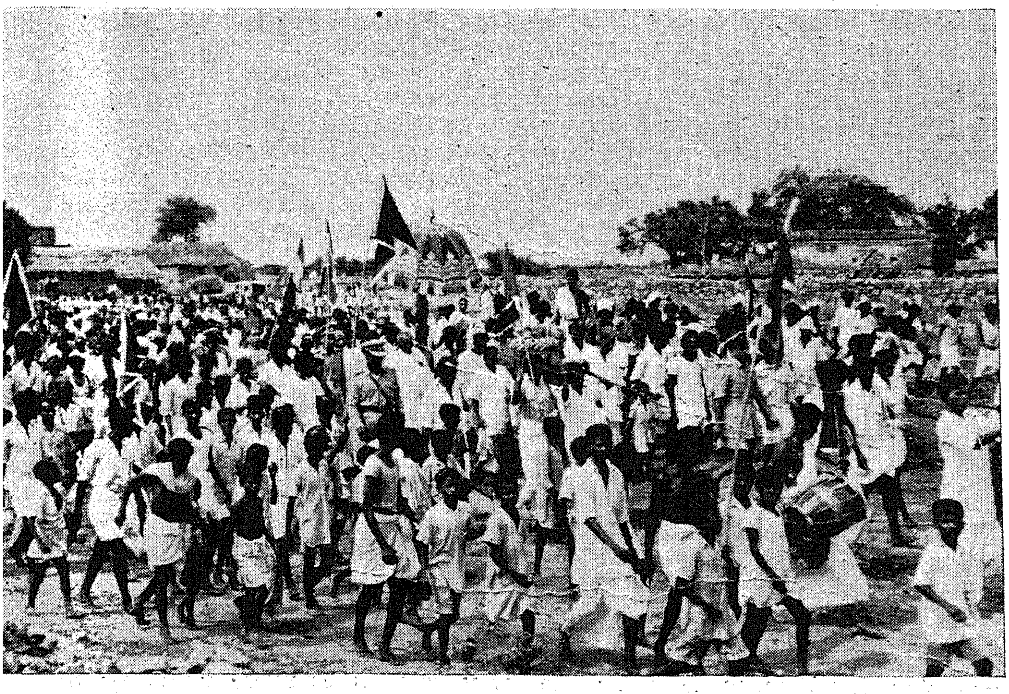
12 NOV 1956

National Plan and Health Programme

The doctors in India have to face a multiplicity of problems which affect their work. They have to deal with patients, most of whom cannot afford to buy present day drugs, or to feed themselves properly. Poverty is the major factor in disease. Lack of general and health education contributes to make a bad situation worse. The permanence of benefit derived from treatment depends largely upon the nature of conditions in which the patient lives and works. To be healthy people require good living and working conditions and income sufficient to provide the necessities of life. The World Health Assembly's programme for the future rightly seeks "to control disease at the source and not rely, as in the past, on therapy, to promote health by improving living conditions and giving children a chance to grow up healthy. . .' Large scale efforts towards improving environmental hygiene, providing better housing, raising nutritional standards and spreading education can proceed only at a slow pace on account of the limited financial resources at our disposal. The main objective of our National Plan of Development is to increase the National income and raise the living standards

SRI A. B. SHETTY.

of the people. In the Second Five Year Plan, health services get an allotment of Rs. 274 crores as against Rs. 140 crores in the First Plan. But still this amount forms only 5·7 pe rcent of the total provision of Rs. 4,800 crores. The larger emphais is on Industrialization and Transport and Communication which together get Rs. 2,275 crores in order to prepare the ground for more rapid economic advance in the Plan periods to come. Improvement in health will automatically follow improvement in the economical, social and educational status of the people.



Ceremonial receptions were the order of the day during the Chief Minister's tour of Ramanathapuram District.

Hospitals, clinics and domiciliary care.

The provision of a reasonable standard of medical service to the people requires adequate hospital facilities and a sufficient number of medical and auxiliary personnel. The Second Five-Year Plan provides for the expansion of the existing medical institutions and the opening of new institutions. Medical services based on clinics and domiciliary care have now been made more effective as a result of recent advances in chemotherapy and preventive measures. So instead of concentrating on increase of hospital accommodation, treatment at clinics and at the homes of patients can be given more encouragement hereafter.

Primary Health Units.

One important general trend in modern medicine is to switch on emphasis from curative to preventive medicine. Mere individual curative care will not improve general health standards. A more community-minded and preventive approach is required to meet the needs of countries like ours with low standards of nutrition and sanitation. We have to train a new type of doctor who can look after the medical needs and public health problems of the rural areas. In consonance with this, a start has already been made by opening primary health centres to provide integrated preventive and curative service to the rural population. During the Second Plan period it is proposed to open such centres in as many Community Development Blocks as possible. Madras State will have 140 centres during 1956-61.

Medical Education and Training.

Provision has been made in the National Plan for the expansion of the existing medical colleges and attached hospitals, the establishment of 5 or 6

new colleges and the creation of facilities for post-graduate training and research. Madras may in all probability start a new medical college at Coimbatore. Departments of Preventive and Social Medicine are being set up in our medical colleges with a view to adjust the pattern of medical training to present-day ideas and the special needs of the country. There is a great dearth of Medical and Health Officers of proper qualification and experience to meet the growing needs of the various health programmes proposed under the Plan. The Central Council of Health has, therefore, recommended the extension of the age of retirement of competent officers up to 60 years. One serious impediment to the starting of new medical colleges is the shortage of teaching personnel in non-clinical subjects. Enhanced scales of pay will have to be given to attract suitable personnel for this category of service. The Central Government will give 50 per cent of the increased expenditure which State Governments may have to bear for this purpose. A full complement of auxiliary personnel is essential for the efficient working of medical and health services. The Plan has made provision for training increased numbers of nurses, midwives, pharmacists, technicians, etc.

Basic Sanitary Services.

The great need in our country is the provision of basic sanitary services. Adequate and safe water-supplies and efficient sewage disposal would result in the diminution of water-borne and fly or insect-borne diseases, which are rampant here. The Madras State is having the benefit of the National Water Supply and Sanitation Scheme formulated in 1954. The Scheme is now being implemented in selected villages subject to frequent attacks of cholera in six districts of this State. Increased allotment has been made in the Second Plan to urban water-supply and sanitation and rural water-supply schemes. Water-seal squatting slabs for latrines will be manufactured and supplied to houseowners in the districts of this State at concessional rates or free of cost in deserving cases. In view of the need for staff with special training in public health matters, steps have been taken for expansion of training facilities for public health engineers, sanitary inspectors, etc.

Diet Therapy.

The newer knowledge of nutrition constitutes one of the significant advances in preventive medicine. Two of the outstanding nutritional deficiency problems are protein malnutrition and vitamin A deficiency. Infants in the post-weaning period and young children of the poorer classes are the chief sufferers. Protein malnutrition in its serious form may cause life-long damage to the health of children. Skim milk is a good remedy but it has to be imported from abroad. The Nutrition Research Laboratories at Coonoor have made a preparation out of roasted Bengalgram powder, jaggery and plantain which is cheap and nearly as good as skim milk as a protein supplement to the diet of children. Vitamin A deficiency has long been known. It causes, as you know, night blindness in poor children and it often leads on to total loss of eye sight. This can be prevented by means of cheap vegetable foods rich in vitamin A, if animal sources of this vitamin are beyond the means of the children affected by this deficiency disease. Children who are treated at hospitals for such nutritional deficiencies may improve for a time but relapse often occurs when they return home. Preventive approach is better than clinical approach in all such cases. The doctor must study the principles underlying various therapeutic diets and make use of diet therapy in such diseases as diabetes, liver trouble, anaemia and toxaemia in pregnancy and other conditions such as obesity. The Public Health Department in our State has given an important place to nutrition work in its programme. The Second Plan has a scheme for the employment of dietitians and the establishment of special diet kitchens in the teaching hospitals of the country.

Maternal and Child Health.

High priority is given to maternal and child health care in the programme of health development. Additional maternal and child-health centres are being set up in rural areas and they are being integrated with primary health units. The target for Madras State is 600 centres. Research programmes have been instituted by the I.C.M.R. in regard to maternal and child-health problems. Pediatric training is now being given great importance and provision has been made under the Second Plan for establishing centres for this purpose.

School Health Service.

School Health Services and school feeding schemes have contributed in substantial measure to the well-being of the younger generation in many western countries. The Madras Second Plan provides for the medical inspection of 1½ lakhs of school children as a first step in this much needed service.

Control of communicable diseases.

National programmes for control of malaria, filariasis, tuberculosis, leprosy and venereal diseases have been undertaken with the aid of W.H.O. and other foreign agencies. The success so far attained in the control of malaria is an outstanding achievement. We have to eradicate malaria before the mosquitoes develop resistance to insecticides. Filaria control work has been inaugurated at Mangalore and Kozhikode in the first week of this month. The campaign started against yaws in the affected villages in Avinashi taluk, Coimbatore district, is giving remarkably good results. Sulphone therapy has introduced a new era of leprosy control. Pilot projects have been started for control of leprosy by mass sulphone treatment of patients, by measures for prevention of infection to children and by health education of the people in certain endemic areas. The Belgian Leprosy Unit is doing remarkably good work in certain villages of Chingleput and the neighbouring areas. The effectiveness of the newer antibiotics in treating tuberculosis patients in their homes is being taken up for investigation in Madras City with the co-operation of the British Medical Research Council.

B.C.G. Campaign.

Last month a short notice question came before the Legislative Council asking whether Government will revise its B.C.G. policy in view of Dr. Palmer's report, some parts of which were recently given publicity in the Madras daily papers. What Dr. Palmer has said refers to his own country, the United States of America. Prof. Wallgren quoted by Dr. Palmer writes about the use of B.C.G. in his own country, Sweden. The U.S.A. and Sweden are countries which have advanced a long way towards complete uprooting of tuberculosis and there is decreasing need for B.C.G. vaccination in those

places. The problem of tuberculosis in India is different from that of U.S.A. and Sweden. The chances of new infection are very limited in U.S.A. and Sweden. In India the infection rate is high. If we adopt the policy of not vaccinating the uninfected children in this country and allow them to be naturally infected with virulent tubercle becilli, we shall be exposing them to the risk of developing tuberculosis. Government's policy in regard to B.C.G. vaccination is justified by the very favourable report of the British Medical Research Council's Committee published in February this year. This Committee's investigation has shown the substantial value of B.C.G. in the reduction of tuberculosis among the B.C.G. vaccinated school children. The Ministry of Health in U.K. had even before the publication of this report introduced a scheme for B.C.G. vaccination of 14 years old children who are found tuberculin negative.

B.C.G. as a prophylactic measure has been given emphasis in this country's programme of tuberculosis control. The Second Plan of the Government of India proposes to complete the first round of the campaign and cover the entire susceptible population below 25 years of age.

Mental Health.

Hardly any research has been made in this country in the sphere of mental health. There is a great dearth of doctors trained in psychiatry and of nurses who can deal with mental patients. The Upgraded Institute of Mental Health at Bangalore is meant to meet these requirements. In spite of the advances made in psychological medicine in the West, the main types of mental diseases continue to be unsolved problems in medicine. Psychotherapy as well as physical treatment including insulin coma treatment and electric convulsion therapy fail to give satisfactory results. Leucotomy and allied brain operations may be of some use except to alleviate psychoses which cannot otherwise be tackled but they have a damaging effect on the patients' personality.

Establishment of clinical and public health laboratories.

Medical progress in recent years is due to the development of diagnosis and the discovery of potent drugs. Correct diagnosis is necessary for treatment by the specific remedies which are

A Frankenstein in foliage—met with during Chief Minister's tour of Ramanathapuram district.

available today for many diseases. Early and accurate diagnosis can also cut off dangerous developments by means of timely and appropriate treatment. Recently devised methods of detecting contamination of water and food can be of help to prevent or check the outbreak of gastro-intestinal diseases. The establishment of clinical and public health laboratories for which some provision has been made in the Second Plan of the Madras State will be of great assistance to physicians and health authorities in dealing with illness in individuals or in saving the the community from epidemics.

Drugs and Medical requisites.

With the advent of newer therapeutic agents, the whole picture of medical practice has changed. The antibiotics, chemotherapeutic drugs, vitamins and hormones, which constitute the bulk of present day requirements, have to be mostly imported from abroad at high cost. The Central Government have, therefore, taken steps to establish as a State industry the manufacture of such medical requisities and also surgical instruments with the aid of foreign agencies. There is a proposal to put some form of restriction on the indiscriminate use of antibiotics by prohibiting their sale except on the prescription of a registered medical practitioner.

Family Planning.

The Planning Commission have adopted Family Planning as a part of our National Health Plan. The eminent scientist Dr. Julian Huxley has complimented India for being the first great country to enunciate a national policy in this matter. Margaret Sanger, Hon. President, International Planned Parenthood Federation, has paid a similar tribute to India. An active public opinion has to be created in favour of family planning and birth-control advice and service has to be made available at hospitals, health and maternity centres. A Central Board has been started to give an impetus to this programme and a provision of Rs. 5 crores has been made for this purpose. The Madras Government have been foremost in taking action in regard to the family planning programme. We must be thankful to the State Branch of the Indian Medical Association for indicating their willingness to co-operate with the Government in this task.

Three Dimensional Approach.

We are living in a period when medical science is progressing more than ever before in history. Medicine has become divided into ever so many sub-sections. Each speciality is becoming a colossal thing in itself and there is bound to be further subdivision. These great developments should not make the medical man lose sight of the fact that medicine is a profession and not merely a technology. The focus of medical practice has shifted from the disease to the patient. The patient is not just a case. He is a human being with a peculiar psychic background, living in a particular environment. All disease is now recognised to be psychosomatic. If disease is to be dealt with successfully, mind and body have to be treated concurrently. The doctor must also study the environmental and social factors which play a large part in the genesis and course of the patient's illness. This three dimensional approach to the patient takes due note of the mental and social no less than the physical aspects of disease. The doctor who takes such a broad view becomes cognisant of the fact that his duty is not only to cure disease but to prevent it and promote health.

Modern Trends in Indian Agriculture

Agricultural Research Today

Time is very opportune for the agricultural research workers to consider to day's trend in agricultural research and ponder deeply as to how it is highly favourable for the fulfilment of the ambitious programme of the All-India Planning Commission so far as crop production is concerned. Very aptly indeed that the Madras Agricultural Students' Union had a symposium on 'Modern Trends in Indian Agriculture' during the recent celebration of its 39th College Day and Conference held in the first half of August 1956 under the distinguished presidentship of Dr. J. S. Patel, Additional Agricultural Commissioner, Planning Commission, Delhi. Various specialists presented their views at the symposium. A brief review of what they are is presented in this article.

India has just entered the Second Five-Year Plan period. It is needless to state that the first Five-Year Plan was mainly an agricultural plan. Achievement in the First Plan period is really marvellous. The level of food production in 1955-56 increased by about 15 per cent when compared with that of 1949-50. In the Second Five-Year Plan also sufficient attention has been focussed on the development of agriculture. The target of crop production fixed for the current plan period is 40 per cent increase so far as cereals are concerned.

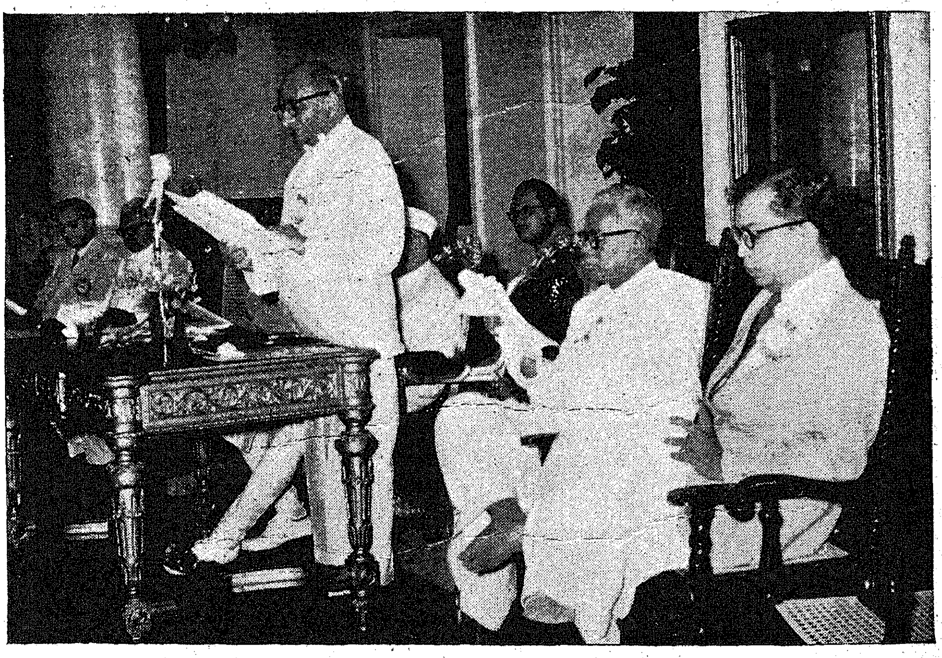
The Agronomists, the Plant Breeders, the Plant Pathologists, the Agricultural Meteorologist, the Agricultural Chemists and the Agricultural Engineers have to work in a team to enable the country to operate successfully the various agricultural plans envisaged in the current plan period. These scientists do not feel shy to copy, wherever necessary, the trends of agricultural research in other foreign countries. The adoption of the Japanese method of rice cultivation on an all-India basis, is an unique illustration in full support of this statement. In the First Plan period this method was adopted in an area of 20 million acres and in the present Plan period this area is proposed to be doubled. In brief, this method satisfies fully and efficiently three basic principles of crop production, namely, judicious selection of seed material, adequate manuring and effective intercultivation. The possibility of adoption of similar improved methods of cultivation for other food and commercial crops is also being explored with the main intention of stepping up the yields of crops and maintaining their high yields in a steady manner to the extent possible.

When the role of the Plant Breeder is considered for a while it will be evident that his extreme anxiety is to evolve not only high yielding but also disease-resisting strains of economic crops. Achievement in this direction is really something substantial. But a scientist is never satisfied with his achievement. If he succeeds to grow two blades where one grew previously, his next aim is to have four instead of two. It is good in a way. The farmers are aware of the magnificent role played by the Plant Breeders in this direction.

C. BALASUBRAMANIAN,
Agricultural Meteorologist,
Coimbatore.

Anti-soil erosion measures.

"Good soil means good crop." It is an old proverb. The saying that "Earth has room for all" will be true only when the earth is properly protected. Soil erosion due to winds and floods is a serious problem to be solved. Schemes for adopting effective preventive measures for soil erosion are making good headway on an all-India basis. For proper management of soil



Dr. Panjabrao Deshmukh, Union Deputy Minister for Food, initiating the All-India Fisheries Conference at Rajaji Hall.

effective agricultural implements are being manufactured and made available to the farmers at reasonable costs.

From the point of view of crop production maintenance of fertility status of the soil is as important as selection of good seed. Intensive research is progressing in this direction and useful guidance is being given to farmers. The importance of radio-active isotopes in assessing the fertility status of the soil and the performance of various fertilizers under different conditions is also given due prominence in to-day's agricultural research. Large-scale production of manures and fertilizers is also receiving attention of the authorities. When the production is stepped up, naturally timely availability of manures and fertilizers will also be easy, perhaps well within the means of the ordinary farmers.

Co-ordinated Crop Weather Scheme.

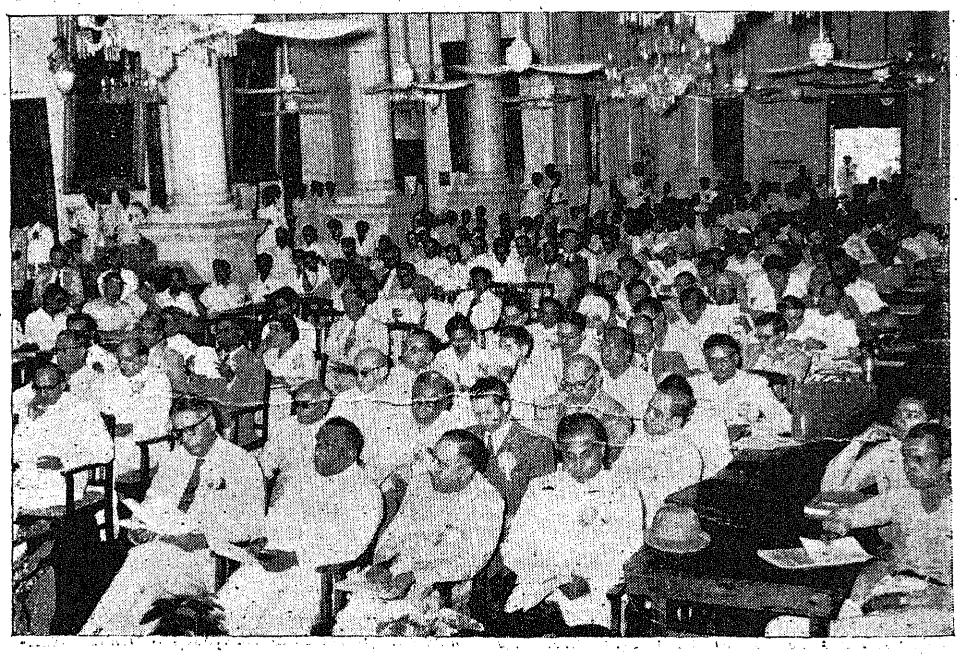
Coming to the incidence of pests and diseases on crops the Plant Pathologists are giving very useful guidance to the farmers to adopt effective prophylactic measures and subsequent control measures as well. A number of pesticides and insecticides are in the open market. The farmers get correct guidance as to which of them to be used for a particular crop and that too for a particular pest or disease as the case may be. The role of antibiotics in the control of diseases on crops is also being investigated. The Plant Breeders also are focussing their attention on the evolution of disease-resisting strains. The latest approach to the problem is the exploration of the possibility of forecasting the incidence of pests and diseases on crops from a knowledge of the existing weather conditions and this is one of the main aims of the All-India Co-ordinated Crop Weather Scheme. Incidentally suitable field techniques are also being evolved to assess the extent of damage done to crops by pests and diseases under field conditions.

" Waste not and want not."

Improvement to irrigational facilities is also receiving adequate attention. The agricultural research workers give a modern approach to the study of water requirements of crops. Assessment of minimum water requirement of crops will go a long way to derive the best from the existing slender irrigational facilities. This is in consonance with the policy " Waste Not and Want Not." Research in the direction of deriving energy from winds for irrigational purposes and seeding of clouds to get rains whenever there is heavy favourable cloud formation is also in the scheme of modern agricultural research.

One adverse major factor in crop production is the heavy damage done to crops by the sudden and violent changes in weather. Steps are being taken by the Madras Agricultural Department as to how best it can come to the rescue of the farmers in this connection. Effective measures are being contemplated to control heavy damages to crops due to floods.

The present-day trend in agricultural research is very helpful to get the best from the soil and also to protect the interests of the tillers of the soil in all possible ways and means. The agricultural research workers of to-day have enough food for thought and they are sure to produce enough food for belly to everyone in the country.



A section of the delegates to the Fisheries Conference.

Certification Mark for National Flag

The Indian Standards Institution has granted a licence for use of its certification mark to Messrs. Khadi and Gramodyog Bhandar, 396, Kalbadevi Road, Bombay, for the National Flag of India.

The mark will certify that the flags have been manufactured in conformity with the relevant Indian Standard, viz., IS :1-1951. The standard mark consists of the monogram of the Indian Standards Institution, the number designation of the Indian Standard being inscribed in the top side of the monogram. The mark will appear on the sleeve of the flags.

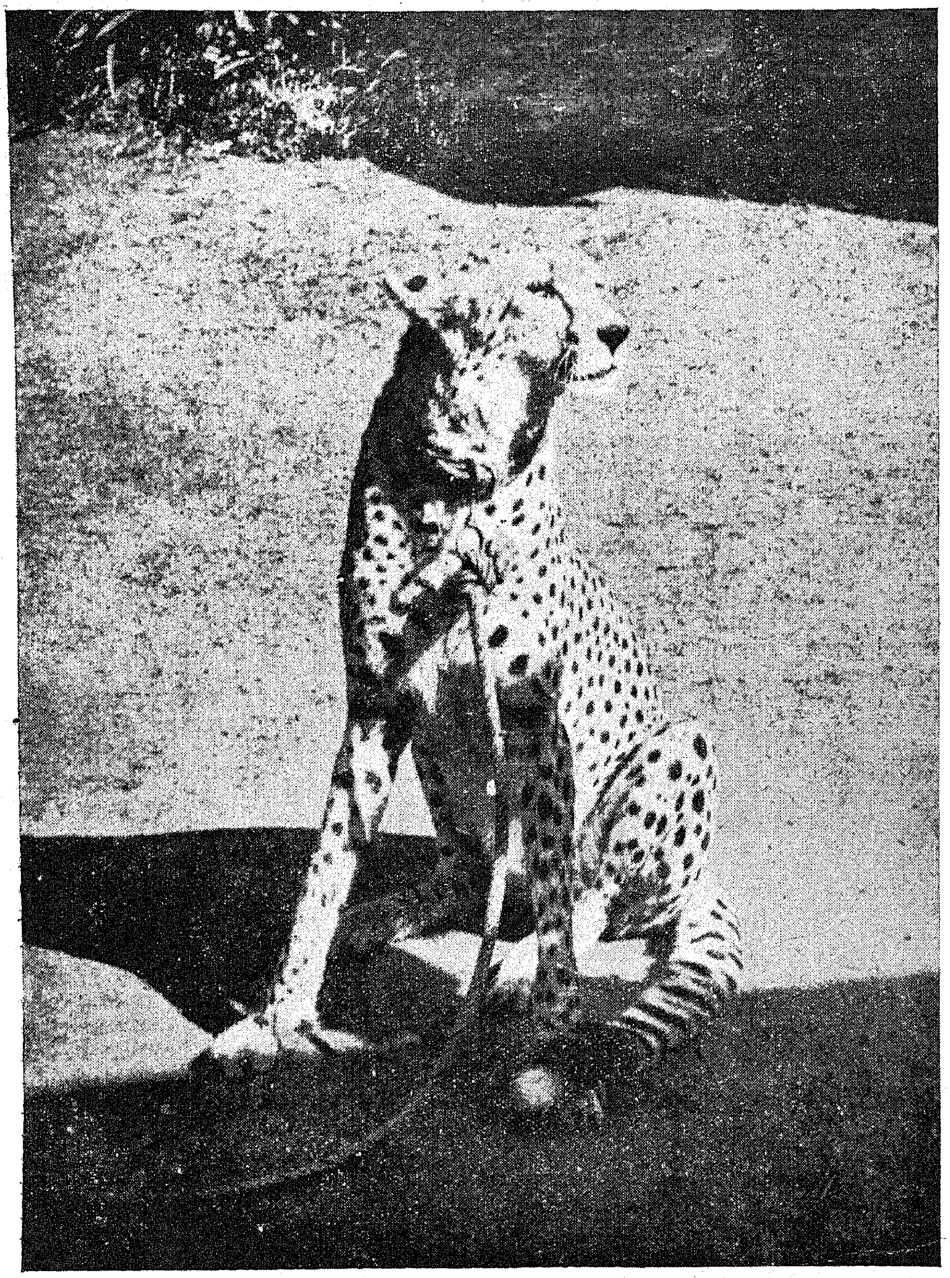
The National Flags bearing the standard mark will convey an assurance to the purchaser that they have been manufactured under controlled conditions and are of the quality laid down in the Indian Standard. If any purchaser has any complaint about the quality of the National Flag bearing the standard mark, he could send his complaint to the firm and also to the Indian Standards Institution.

It has not been uncommon to see National Flags of all types of sizes and colour shades being used even on ceremonial occasions. The use of Standard National Flags is now possible with the availability of certified flags.

The marking of the flags will commence from October 2, 1956, the birthday of the Father of the Nation.

Hunting with Cheetahs

M. A. BADSHAH,
Madras Forest Service.



The glorious days of hunting with Cheetahs have vanished never to return. Cheetahs so abundant in the past have now to be painfully written off the list of mammals in India. They are completely extinct.

It is expedient at the outset to clear the confusion regarding Cheetah and Panther prevalent among laymen, for, several call Panther, Cheetah.

They are different.

Strictly speaking, Cheetah does not belong to the cat family though in appearance it is so like the cat. It belongs to a separate genus altogether, and possesses only partly retractile claws unlike the Panther which has completely retractile claws. Cheetahs have long legs, long tails, small roundish heads and dark solid circular spots slightly bigger than a four-anna coin against a pale cream ground unlike panthers who have short legs, comparatively short tails and fairly good head and diffused spots against yellowish ground. Another distinguishing mark is that Cheetahs have dark perpendicular lines running from the eyes to the lower jaw which are conspicuous in panthers by their absence. Cheetah is about 7 feet in length and Panther slightly larger. Panthers are cunning and untrustworthy and Cheetahs are kindly in disposition and make nice pets.

Cheetahs in their wild state select three places. In one part of the country they hunt, in another they rest and sleep and in the third they play and amuse themselves. They prefer to sleep on the summit of the hill under the shade of trees. Cheetahs, fastest of all animals, were used as trained hunters by the kings and maharajahs in the ancient India. Being nimble and swift they easily overtake any animal however fast it may run. They almost appear to fly. It is astonishing to see them chasing antelopes and deer and overtaking them.

In the days of the Great Moghul.

Emperor Akbar was so fond of hunting with Cheetahs that he developed this technique a great deal in his time. Agra and the adjoining districts were full of Cheetahs. By various devices hundreds of Cheetahs were captured by the Emperor and employed on shikar after giving them training. Before Emperor Akbar's time it took three months to train a Cheetah but whereas the Emperor had mastered the technique so well that in 18 days the Cheetah was out with him in the hunting ground fully trained. Four men were appointed to look after each Cheetah. Nine thousand Cheetahs were kept in His Majesty's park forming an interesting encampment. They

were divided into various classes. The first class Cheetah got 5 seers of meat a day, second class 4½ seers ; third class 4 seers and so on up to the eighth class. No animals were killed on Sundays. Double the daily ration was issued on Saturdays.

His Imperial Majesty was taking keen personal interest in looking after the Cheetahs. Many incidents have been recorded about his affection for these animals. His Majesty had become such an expert in training them that once there was a fresh capture and without any training, on a mere hint from His Majesty, the Cheetah darted like an arrow and brought in a deer with the ease of trained one. A Cheetah hypnotized by the wonderful influence of the loving heart of His Majesty followed the imperial suite without a collar or chain and like a sensible human being obeyed every Royal command. On account of the extreme kindness shown by His Majesty a deer made friendship with a Cheetah and both lived in peace happily for several years.

Freedom from Bondage.

The men employed to train and look after the imperial Cheetahs were handsomely rewarded on occasions when the animals showed extraordinary skill in hunting.

By a close and careful study of the ways and habits of these animals His Majesty introduced many changes in their maintenance. Formerly Cheetahs were never allowed to remain loose in the evenings as the keepers were afraid of their ferocity and anxiety to escape from custody at the slightest opportunity. Further they were kept blind folded except at the time of chase. But in consequence of the experience His Majesty gained of these animals he ordered that the Cheetahs should be let loose in the encampment without covers for the eyes. To the astonishment of all, the Cheetahs remained calm and obedient.

Cheetahs were taken to the hunting ground by His Majesty on elephants, camels, horses, mules, in carts and palanquins. The best Cheetah His Majesty had named *Samand Mānik* was carried in a *Chaudol* (Doly) in front of His Majesty with much pomp and splendour; his servants fully equipped and decorated running at the sides of the *Chaudol*. A large drum was played in front of this Cheetah heralding his march.

On arrival at the hunting ground the Cheetahs descend from their mounts and reconnoitre the area. They proceed on the sly against the wind and getting scent of the prey give indication to the men following them about the direction they should follow. The attack was planned in three ways.

First, the men unleashed the Cheetahs to the right side of the place where the deer were found feeding. They swiftly leap out and seizing the prey bring it to the men.

Secondly, the Cheetah lies concealed and the deer is shown to it from a distance. Then it dashes off, leaping from ambush to ambush until it seizes the prey.

Thirdly the Cheetah conceals itself in a bush having the wind blowing towards him. Then the cart supposed to be carrying the Cheetah is taken to the opposite direction and left. This perplexes the deer. When it is looking suspiciously at the cart, the Cheetah surprises her from behind with lightning speed and grasps the deer.

Besides these, several other devices were adopted in hunting deer. The Cheetah will raise a storm of dust with his fore and hind paws in order to conceal himself or lie down so flat on the ground that it will be impossible to distinguish him from the surroundings. When the deer approaches him unawares it springs a surprise on her. A Cheetah will hunt as many as twelve deer in a single chase. He was taught to hunt only stags and not does. If by chance he seized a deer he was punished by depriving him of his share of venison of the day. In this way they were encouraged to hunt only stags.

Cheetah is gone, gone for ever.

These happy memories of the past make us reflect on our wild life wealth which has dwindled down considerably. India is definitely poor to-day in its faunal possession. Like the thoughtless sons of a rich indulgent father, we have been squandering away our Wild Life Wealth in a reckless fashion. The seriousness of our folly can be gauged from the fact that Cheetahs once so abundant are now completely extinct in India and one had to be imported from Africa at a fabulous price of Rs. 5,000. We stand self-condemned in the eyes of the world to-day for not having valued our precious heritage when we possessed it. If we do not bestir ourselves and take stock of our Wild Life Wealth and try to conserve it in perpetuity many of the present-day animals will meet the same fate like the Cheetah. We may lament all our lives but the Cheetah will not return. It is gone, gone for ever.

Fruit Juice Powder : New Process Developed

A new process for the production of fruit juice powders from mangoes, oranges and papayas has been developed at the Central Food Technological Research Institute, Mysore.

Fruit juice powders are not manufactured in India at present.

The powders are becoming increasingly popular particularly for feeding infants and children. They are palatable and constitute a rich source of vitamins. They can be reconstituted into juices having almost the same nutritive value as juices prepared from fresh fruits. It is also more convenient to transport the powder.

Under the new process pretreated fruit juice is concentrated and mixed with powdered sugar, fortifying where necessary with vitamins, minerals, salts, colours, flavours, fruit acids, etc. Drying is done in an ordinary cabinet drier or in vacuum driers. The dried material is powdered and suitably packed.

There is considerable scope for developing fruit juice powder products in India because of plentiful supply of fruits in certain regions at cheap rates. Mangoes are found all over India. Supplies of oranges are available in Madhya Pradesh, Mysore, Tripura, Assam and Bihar. Substantial quantities of papayas are grown in Bombay, Madhya Pradesh, Assam, Uttar Pradesh and Orissa.

The process is covered by Indian Patent No. 49590 and has been successfully worked out on a semi-pilot plant scale.

Parties interested in undertaking commercial utilization of the process are invited to write for further details to the Secretary, National Research Development Corporation of India, Mandi House, Lytton Road, New Delhi-1.

The Mangroves

M. S. CHANDRASEKHAR,
Curator for Botony, Madras Museum.

The word, *mangroves*, should in no way convey the impression that it has anything to do with the delicious mangoes, or the mangosteins! As most enlightened and regular visitors to the Government Museum, Madras, will point out, by *mangroves* is meant only a kind of vegetation which is composed of woody plants, and which clothe most tropical and sub-tropical, estuarine, coastal and back-water swamps. The *singular* form of the same word refers to a particular plant which grows in similar situations, and which is known to botanists as *Rhizophora mucronata*. Some mangroves grow also on coral reefs.

The way the mangroves solve their life-problems, is an interesting subject for study; and for an easy and proper appreciation of the same, a knowledge of the topographical and other conditions in their locality, seems a prerequisite. After a youthful and fast life of erosion and denudation, rivers attain their old age and sluggishly meander in their own peneplain before they empty themselves into the sea. When their velocity is checked on reaching the sea, deposition of the numerous sediments (that are carried in the rivers), begins. Thus the depths of the rivers are reduced and a number of estuaries are brought into existence. The process of deposition of sediments is, however, continuous, resulting in elevation of the river-bottom to the level of the surface. This brings about the formation of a number of marshes. The marshes get submerged at regular intervals under sea-water which gushes in during high tides. The sea-water advances and recedes alternately, building up sand bars and dunes. The sand deposits substantially reduce the amount of sea-water escaping back to the sea. Eventually the area becomes one of salt marshes, where the soil is water-clogged almost to the point of saturation. But the water all around and in the soil is salt-water which is rendered more and more concentrated by each flush of sea-water and by the evaporation that continuously takes place at the surface. In short, the land is loose and muddy without any air-space, and in the form of marshy islands in shallow, stagnant sheets of brackish water.

Woody plants require a firm ground which should not give way to their weight. In addition, they require air to breathe, water to drink and food to eat. It is needless to say that salt-marshes of the type described above, can hardly provide for any of the basic vital needs of the woody plants growing on them.

It is perhaps best to leave it to imagination, what the probable consequences would be if the plants around us suddenly become motile (or start moving from place to place)! But the principles of *Pancha Shila* seem to command respect even from the Vegetable Kingdom! For almost all plants with the exception of a few primitive ones (illustrations of which are also shown in the Government Museum, Madras), are sedentary (or attached to a sub-stream). The task of holding the plant on to the soil, is executed by the roots in addition to their other duties. In this regard, the difficulties of the roots in marshy soils, hardly call for any special accounting.

Plants do not have exclusively respiratory organs which the animals possess. Every organ of a plant carries on respiration quite independently of every other organ. This is true even of the roots which make use of the air in the minute spaces between the soil-particles. There is hardly any such air-space for the roots in the salt-water swamps.

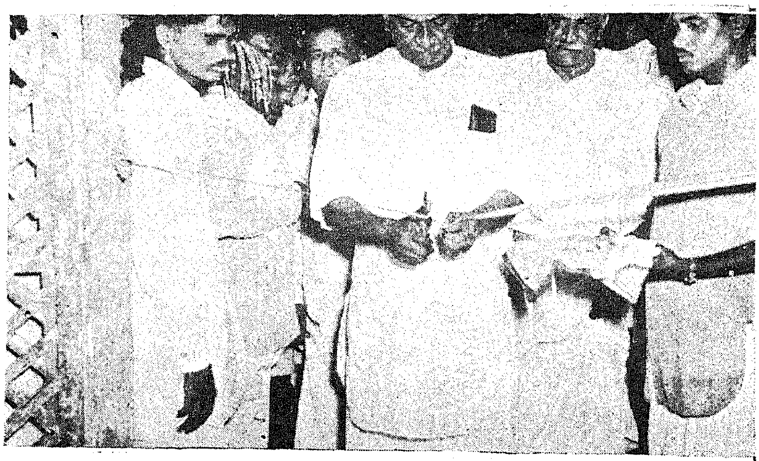
The major bulk of the plant body as in the case of other living things, is made of water. Water is also one of the substances with which the plants prepare their own food. Also the food that is manufactured within the plants, is moved from the place of manufacture to the places of use, storage, etc., only through the medium of water. Purposes for which water is required by plants, can be multiplied thus. But it would suffice to say that there can be no life-activity without water. The chief water-absorbing organ in plants, is the tip of the roots and rootlets. Thin, porous membranes of these parts separate the internal sap which is of higher concentration, from the external soil-water which is of lesser concentration. Through the process of osmosis (solution of lower concentration flowing through a porous membrane and mixing up with that of higher concentration), the soil-water is absorbed by the roots. Excess water is expelled by the plants generally in the form of vapour from the leaves (which process is termed transpiration). There is no doubt plenty of water in the salt marshes. The soil is so full of it. But the water that is available is saltish, and the concentration is so high that osmosis can hardly take place. In other words the plants, though rooting in mud and standing in water, yet face the conditions of a severe drought!

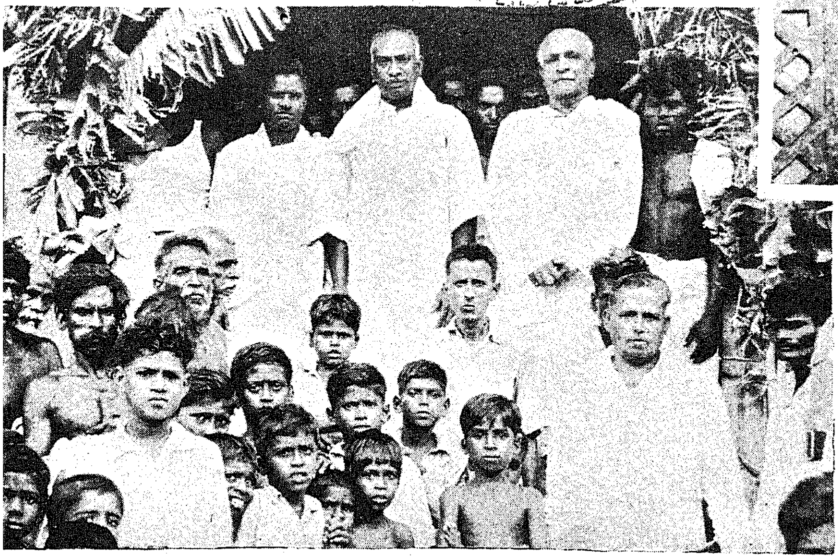
It seems to be God's decree, that plants alone should manufacture the natural food materials not only for themselves, but also for the other living things! The manufacture is carried on in all the ærial, green parts of the plant (such as the leaves, etc.). There, starch is prepared by the green pigments, using water, air and the energy contained in sunlight. Even in the salt marshes, therefore, a well-established plant will find no difficulty to prepare its own food, subject, of course, to the availability of water (for which it should have made adequate arrangements already). But, what of the young plants, the seedlings sprouting from the seeds? Things falling on the loose muddy soil, bury themselves very deep in it. The fruits and seeds are no exception. Surely, the seeds cannot maintain an indefinite supply of food to the seedlings till they could grow up from their depths and put forth green leaves above the soil.

It will be an interesting study, therefore, to find how the mangroves manage their affairs in salt-water swamps.

The mangroves have special ways of putting up with the soft and loose kind of soil underneath, and can be

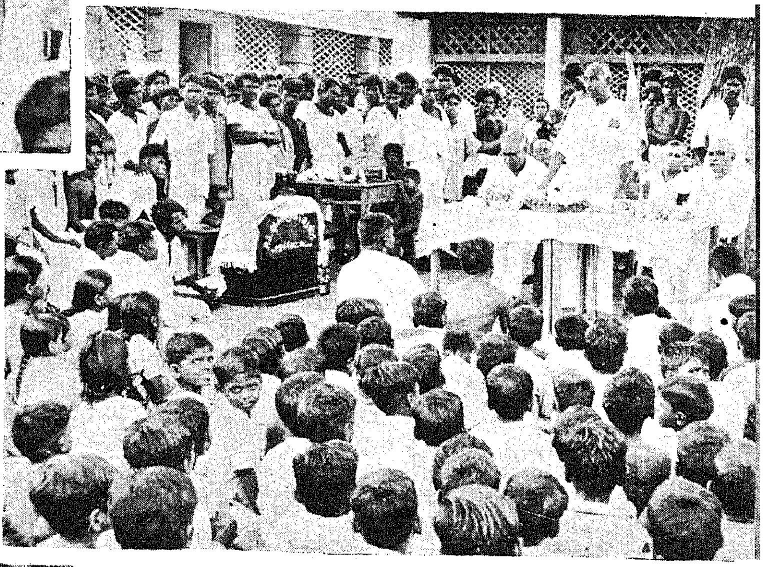
THE CHIEF MINISTER'S TOUR OF RAMANATHAPURAM





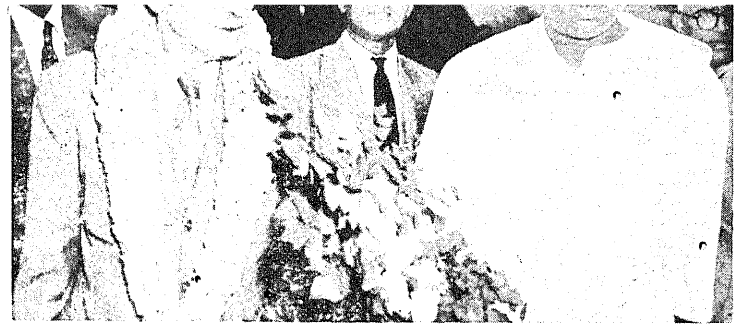
-- WAS THE SIGNAL FOR A NEW ROUND OF DEVELOPMENT -

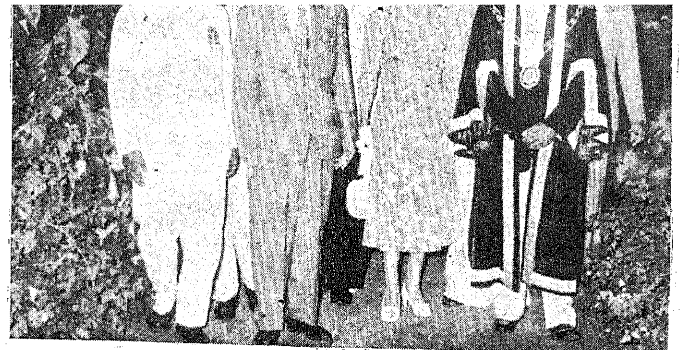
-- ACTIVITY IN THAT DISTRICT, WHICH GREETED HIM --

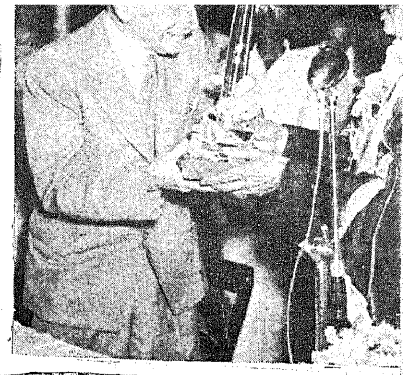


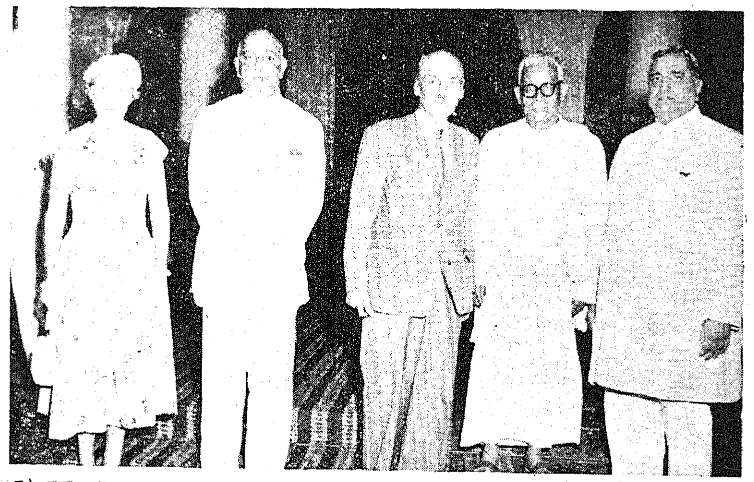
-- WITH GAY SCENES OF FUN AND FESTIVITIES --

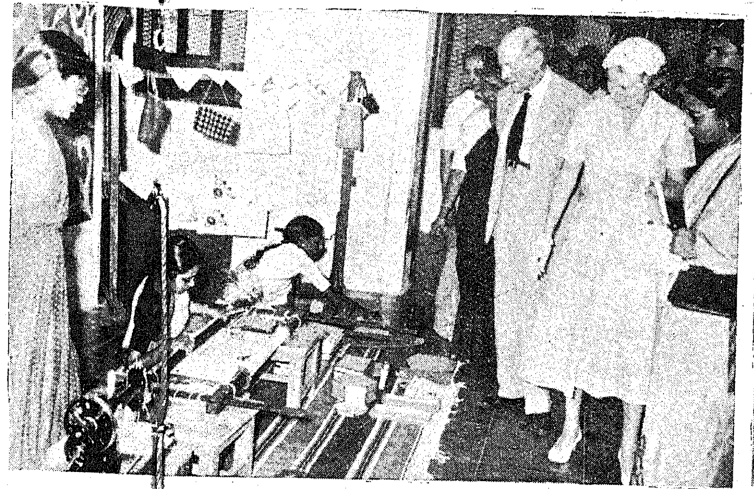
--IN WHICH CHILDREN AND ADULTS ALIKE PARTICIPATED.

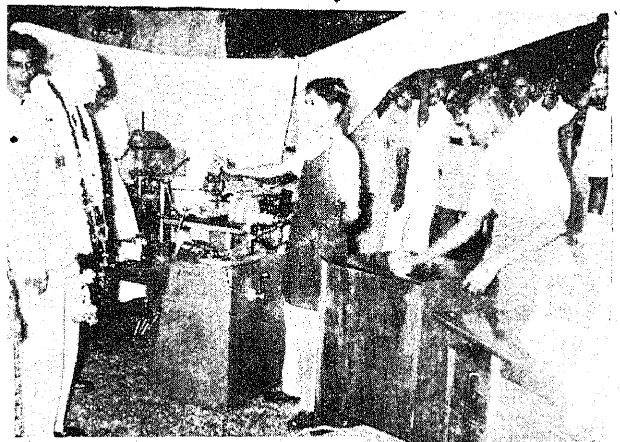


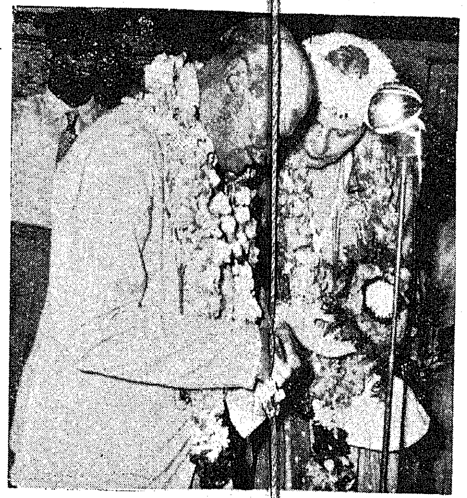


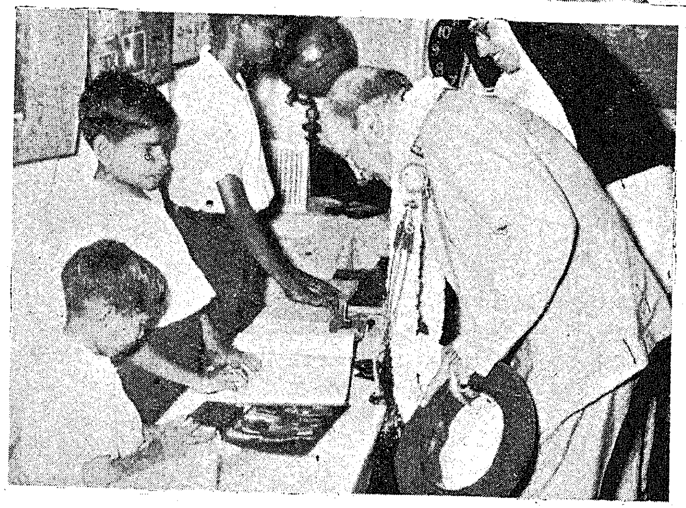












It was red carpet all the way all the time, to the Attlees when they visited Madras for a 5-day stay. Manifestation of the people's regard for them as champions of the common man, was evident wherever they went.

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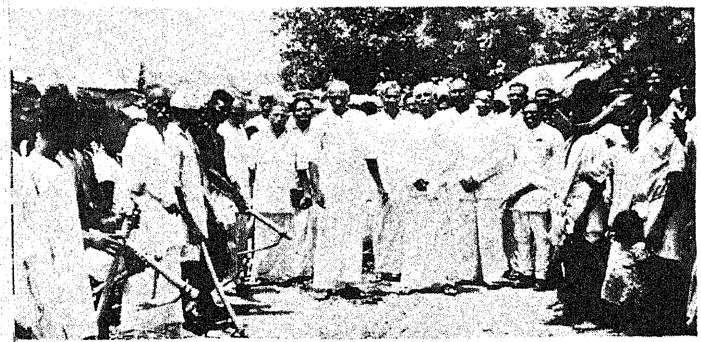
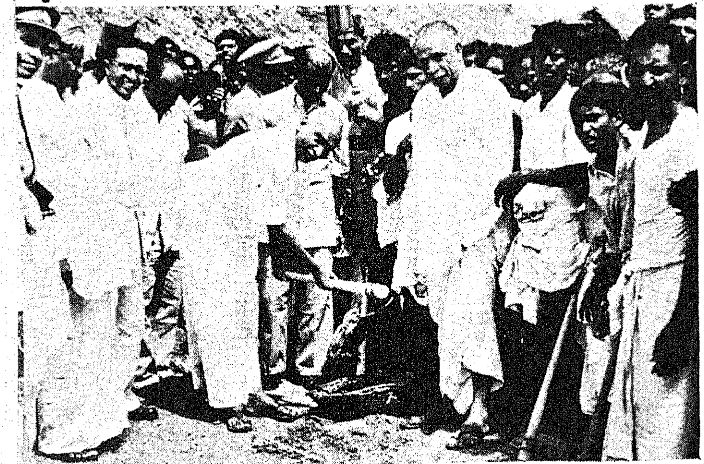
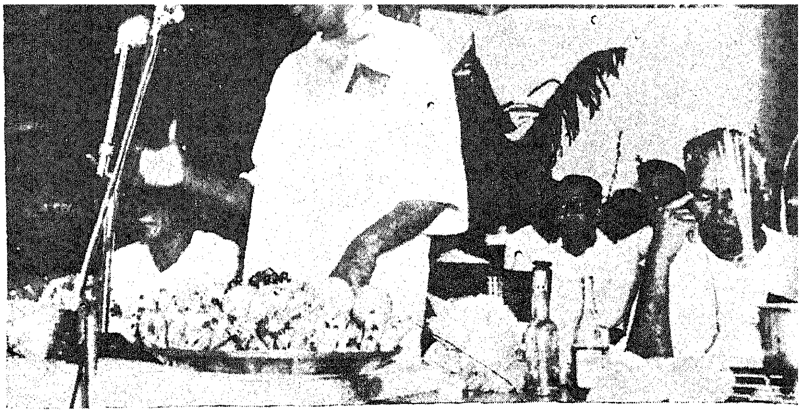
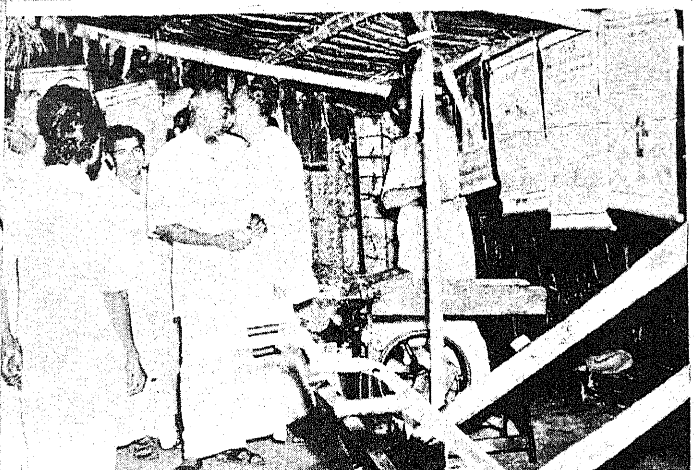
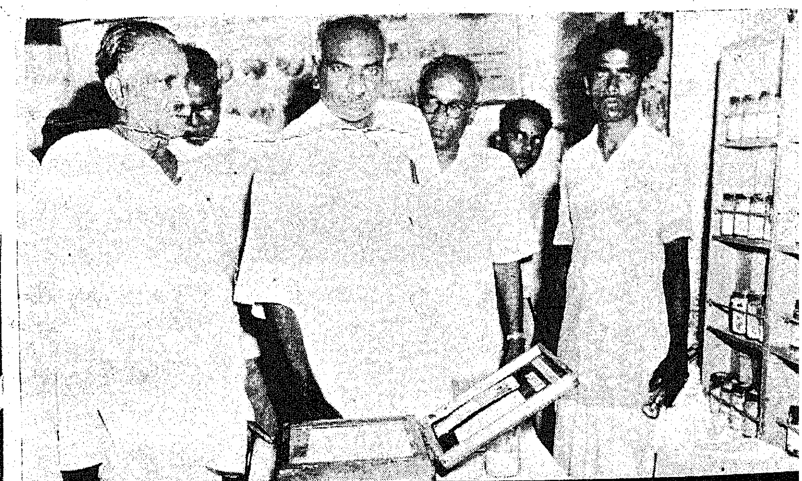






Public meetings, personal enquiries, inauguration of local development works, inspection and appreciation of local talent and initiative—all this and more was in a day's work when Sri K. Kamaraj, Chief Minister of Madras, went on a tour of Ramanathapuram district.





neither dislodged nor uprooted easily. As a rule they attain neither great stature nor great circumference. The roots radiate generally for long distances. The principal stem usually remains short as compared with the plants of other places, and sends out low-spreading branches. The combined effect of all these characteristics, is to give stability to the tree and protect it against sinking down or toppling over. Some plants, like the Mangrove (*Rhizophora mucronata*), the Sea Holy (*Acanthus ilicifolius*), etc. take also additional precautions. Above a certain height from the soil, cylindrical roots spring from the sides of the stem, run horizontally for a short distance, and then curve down and strike the soil. Since they act as stilts to keep the stem propped up, they are known as stilt roots or prop roots. Long, heavy and woody branches of some of the plants, like the White Mangrove (*Avicennia officinalis*) endeavour to lessen their burden, by sending down clusters of ærial roots of the type that is often seen in plants of other situations, like for instance the Banyan (*Ficus bengalensis*). On reaching the soil the ærial roots grow in strength and girth, and support the weight of the branch above them much as if a new and independent plant has come to exist.

The roots of certain mangroves, like the White Mangrove (*Avicennia officinalis*), develop special organs for purposes of æration within the water-clogged, marshy soil. These organs are known as *pneumatophores* or (more popularly as) breathing roots. They are cylindrical with tapering ends. They grow vertically upwards from the roots and rootlets, through the overlying mud and water, and into the air. Their ærial portions contain minute openings, called *lenticels*, through which the roots and rootlets get their quota of air. The exposed portions of the stilt roots of the Mangrove (*Rhizophora mucronata*), contain lenticels which, in addition to pneumatophores, help æration of the portions underneath the mud.

Though surrounded by sheets of water, the mangroves face with grim determination, the conditions of eternal drought (which has already been explained), in much the same way as many other drought-resisting plants do. The leaves of the Mangrove and the White Mangrove, become thick and coriaceous (or leathery), and store water. The nerve-endings in the leaves of the White Mangrove, dilate and form additional water-storing tubes and conserve water. The stomata on the leaves of this plant are also protected by a dense covering of hairs.

The mangroves have interesting ways of providing for their young. Their fruits contain plenty of air-spaces which render them light and capable of floating in water. They are drifted about by the tidal currents, and if they happen to be deposited on places favourable to them, the seeds begin to germinate. In this way the young plants are enabled to grow free from unhealthy competition and resultant starvation. Yet another way the mangroves cater for their young, is even more interesting. Their seeds germinate even while the fruit still remains attached to the parent plant. In the case of the fruits of the plant which is known botanically as *Aegiceras corniculatum*, the embryo emerges from the seed but remains within the fruit. Not only the embryo but also the endosperm comes out of the seed and remains exposed within the fruit, in the case of the White Mangrove. The Mangrove (*Rhizophora mucronata*) shows a very high degree of advance on these lines. The embryo of this plant grows into a seedling, putting forth leaves into the air at one end of the fruit and roots at the other end. The leaves of the seedling start preparing the food material that is required, even before the fruit separates from the parent plant. After the seedling has grown well enough for leading an independent life, it drops down from the branch. The end bearing the leaves is kept uppermost owing to the resistance offered by the air ; and the other end with the roots gets deep into the mud. The new young plant thus born, starts life in the difficult environs.

It is really worth one's while to spend some time on the specimens and photographs which are illustrative of the interesting way the mangroves live, and which are displayed at the Government Museum, Madras.

Credit Facilities for Handloom Industry

The question of credit facilities for working capital to the Handloom Industry has been recently engaging the attention of the Government. Hitherto such working capital had been provided as loans to Weavers' Co-operative Societies from the Handloom Cess Fund. Upto the end of March, 1956, an amount of more than Rs. 5·6 crores had been sanctioned.

It was realised, however, that sooner or later, such credit would have to come from the normal co-operative banking institutions. With the increased production of cloth through the Handloom Industry under the Second Five year Plan, the need for such working capital would also increase very considerably.

The Reserve Bank has agreed to make facilities available at a reduced rate-at present at the rate of 2 per cent. Adding the usual margins for the Apex and the District Co-operative Banks, this would normally mean an ultimate lending rate of 5 per cent. It has been decided, however, that the Weavers' Co-operative Societies should be enabled to get loans at only 3 per cent. The difference between this 3 per cent and 5 per cent would be given, therefore, as a subsidy by the Central Government from the Cess Fund.

In order to ensure that sufficient credit is made available, the Central Government have also agreed to bear a 50 per cent share of individual losses arising out of non-recovery of any such loans, subject to the prescribed overall ceiling. The remaining 50 per cent of such losses would be borne by the State Government and the Co-operative Banks concerned.

The Central Government have also agreed to share with the State Government the cost of the additional staff that would be required to ensure adequate supervision and audit of accounts of the Co-operative Societies, and of the lending operations of the Co-operative Banks.

It is intended that these arrangements should come into force from April 1, 1957. Loans will continue to be disbursed from the Cess Fund as hitherto until that date, and where arrangements cannot be completed within this time, loans will also continue to be given from the Cess Fund till the end of September 1957.

12 NOV 1956

Progress of Work at Neyveli Lignite Project

Phased Programme for Purchase of Mining Equipment

Orders have been placed at the end of the month of September for the supply of major specialized equipment for lignite mining at Neyveli, such as bucket-wheel excavators, slower spreaders, belt conveyors, track shifter tractors, etc., at a cost of Rs. 4 crores, delivered at site. Earlier in August last orders were also placed for conventional earth-moving equipment to a total value of Rs. 1·57 crores. A number of other items of equipment will be needed for the development of the mine. The requirements are being assessed and detailed specifications of the equipment are being drawn up. Tenders for the additional equipment required are likely to be invited before the end of the year. Earth-moving operations with conventional equipment are expected to commence in the first quarter of 1957 and the first bucket-wheel excavator is expected to be available towards the latter half of 1958.

The plan for the intricate operations involved in open cut mining for the removal of a large volume of over-burden, and the winning of lignite above a series of artesian aquifers, is now under consideration and will be finalized before the end of the year. The quantities of the various materials which will be needed for the construction of quarters for the personnel, who will be employed in mining operations, and on the construction of the various production units included in the scheme are also being estimated.

Good progress has been made by the Planning Cell of the Central Water and Power Commission located in Madras, in the planning of the proposed thermal station at Neyveli, and a rough draft of the scheme for the 200 M.W. power station is expected to be ready before the end of this year. The planning of the Fertilizer Unit is also in progress and the Chemical Engineer is now abroad on a visit to the United States and to Germany to study developments in technical processes. The planning of the briquetting and carbonizing plant will be taken up after experiments have been conducted with the help of a pilot briquetting and carbonizing plant under supply from T.C.M. Aid and expected at the site in April 1957.

Plan for a Model Township.

A contour survey of the entire area has been completed. A town-planning expert has been appointed to prepare a general lay-out plan of the entire extent, earmarking the area suitable for locating production units, workshops, stores, etc., on the one hand, and the area suitable for the location of the proposed township, training institutions, etc., on the other, and to prepare a detailed lay-out of the township after its location has been decided on. An Architect has also been appointed for drawing up the designs and plans of the various buildings needed for quarters, offices, amenities, etc. The intention is to make the township a model one in every way.

The Government of Madras have promised to supply electric power to the extent of 12,000 K.W. to work the specialized mining equipment and other items of construction machinery, till power from the proposed thermal station at Neyveli becomes available. For this purpose, they have sanctioned the construction of a 110 KV line from Villupuram to Neyveli, and tenders have been received by the Madras Electricity Department for the construction of this line. Work on the line is expected to commence early in 1957. Matters relating to the arrangements to be made for stepping down and distributing the power supplied by the Madras Government for the construction work and development of the mine were discussed recently at Neyveli at a conference at which the Chief Executive Officer of the Project, the Member (Power) and other officers concerned of the Central Water and Power Commission, the Chief Engineer (Electricity), Madras, and the General Superintendent in charge of field operations at Neyveli participated.

Acquisition of land for mining.

To check inflation in the value of lignite-bearing lands, the Madras Government had enacted legislation in 1953, pegging the value of lands in 69 villages in the Chidambaram, Vriddachalam and Cuddalore taluks of the South Arcot district to the value obtaining on April 28, 1947. On the representation of the inhabitants of the lignite area, the Government of India have recently approved the release, from the scope of the 1953 Act, of 43 villages, the lands in which will not be required for mining for quite some time. They have also approved the immediate acquisition of the lands in 15 villages in the pegged area needed for mining, and seven villages outside the pegged area required for the construction of the production units, workshops, railway sidings, training institutions and quarters for staff. The entire land will be acquired with reference to need, under a phased programme, and the displaced people will be rehabilitated in suitable areas for which proposals are being drawn up.

Do You Know ?

A provision of Rs. 90 crores has been made in the Second Five-Year Plan for the amelioration of the Backward Classes as against an allotment of Rs. 39 crores in the First Plan.

Two hundred and fifty-three foreign students are studying in 80 educational institutions in India under the Colombo Plan.

Over 20·54 lakhs workers all over India are covered by the Employees' Provident Fund Scheme, which came into effect in November 1952.

...MARA PUBLIC ...
12 NOV 1956

Homo Sapiens

History of the Scientific and Cultural Development of Mankind

UNESCO is sponsoring preparation of a " History of the Scientific and Cultural Development of Mankind " to show the Inter-dependence of nations and their cultures in a just light. This article gives an account of the nature and scope of the work which has been entrusted to a group of scholars.

It would be difficult to try and draw the peoples of the world together in closer comprehension and friendship if they knew nothing of each other's history, traditions and contributions to the common heritage of mankind. That is why Unesco attaches such importance to the study of history in general. And that is why in particular it has entrusted a group of scholars with the task of preparing a " History of the Scientific and Cultural Development of Mankind " to show the inter-dependence of nations and their cultures in a just light.

The work has been taking shape since 1950 under the guidance of an International Commission, composed today of 29 members, representing 20 countries, with the Brazilian scholar, Professor Paulo de Berredo Carneiro, as Chairman. Professor Carneiro described it as a " work which might help educational institutions in the different countries to attach less importance to history from the national angle and lay greater emphasis on what the peoples have gained by knowing each other ".

The undertaking, which is designed to appear in 1960, consists of six volumes devoted respectively to the following periods ; (1) Pre-historic and archaic periods, up to 1200 B.C. ; (2) From around 1200 B.C. to 400 A.D. ; (3) From 400 A.D. to 1300 A.D. ; (4) From the beginning of the fourteenth century to the end of the eighteenth century ; (5) The last years of the eighteenth century to the beginning of the twentieth century ; (6) The beginning of the twentieth century to 1950.

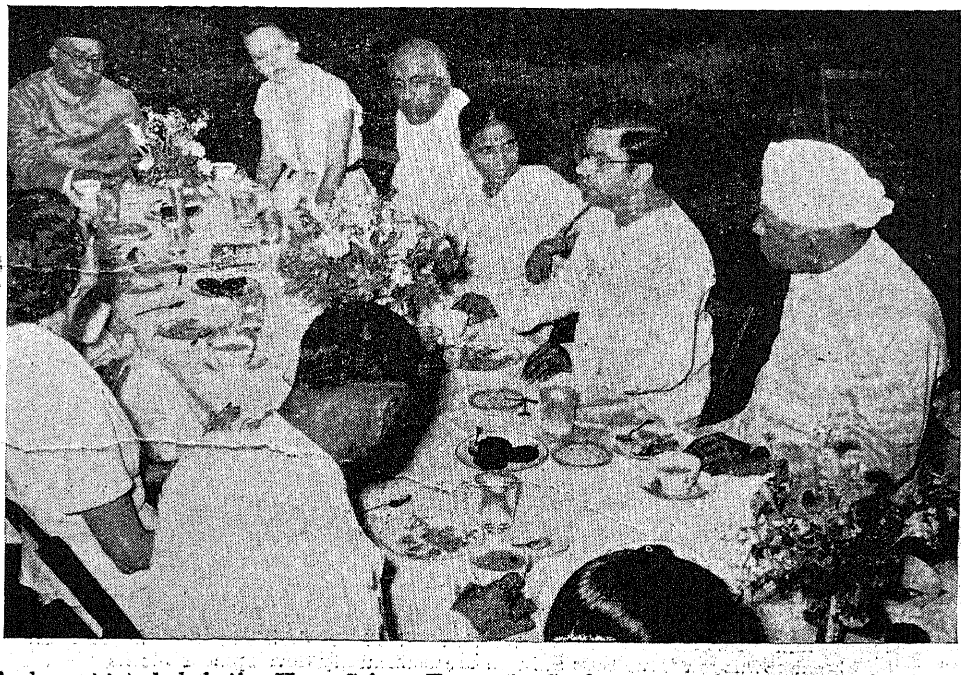
The introduction to each volume will contain a brief summary of the period in question, considered under its aspect as a stage in universal history. It will indicate the position occupied by the different peoples of the world at that time, and their relations with each other. Commerce, wars, travel, migrations, are dealt with as and how they influence cultural exchanges.

Six Main Themes.

Following the introduction, each volume deals with the different cultures of the time and their reciprocal influences. Six main themes emerge and are treated in turn : (1) Languages and systems of writing, intellectual institutions of the period, and education ; (2) Science and technology and their application to agriculture, industry and medicine ; (3) Division of labour and the social structure, government and law ; (4) Scientific theories, religious beliefs and philosophical systems ; (5) Creative forms of expression, arts and literature ; (6) Theory of knowledge and scientific method, new forms of thought, investigation and belief.

The conclusion of each volume, as its introduction, is conceived from a universal point of view. Taken as a whole, the work displays in methodical sequence the evolution of the peoples of the world, their progress, and the way in which human existence has been transformed.

(*Continued on page* 29)



A pleasant interlude in the Home Science Economics Conference held last month in the city.

12 NOV 1956

Four Years of Community Development Programme

The Community Development Programme enters fifth year of service. Launched on October 2, 1952, in about 55 projects, the Programme now covers more than one-fourth of India's 5½ lakh villages, and one out of every three villagers participates in its implementation and enjoys its benefits.

If the physical achievements and the people's contribution towards their realization are any guide, the Programme appears to have justified its description of a "People's Programme with Government's Participation". In terms of money the people's contribution, offered in the shape of cash, kind and labour, has been Rs. 26·13 crores as against the Government's Rs. 46·02 crores in the total expenditure of Rs. 72·15 crores till March, 1956. The people, thus, have contributed nearly half of what the Government has spent.

Coverage under the Programme.

The 557 Community Development Blocks and the 603 National Extension Service Blocks, operating in the country, today cover 157,347 villages with a population 88·8 million. In another 311 N.E.S. Blocks work is going to start today, October 2, 1956. These blocks will cover about 31,000 villages with a population of about 20 million.

The Projects and the Development Blocks, in which the Programme was first initiated four years ago, have now completed their phase of intensive development. During the period, 338 N.E.S. Blocks, where the achievements were impressive, were also converted into Community Development Blocks for intensive development. And today, another 64 N.E.S. Blocks will similarly be turned into Community Development Blocks.

Physical Achievements.

Since the prosperity of our rural areas is largely dependant on agriculture, the Programme, from the very beginning, gave it the first priority. Efforts have been made to educate the farmers in the use of improved agricultural implements, in the better methods of cultivation and to persuade them to adopt improved seeds and fertilizers, etc.

Till March this year, 9,159,000 maunds of fertilisers and 4,826,000 maunds of improved seeds were distributed; 1,282,000 demonstrations of better agricultural techniques were given, and more than 20 lakhs of acres of additional area brought under irrigation. According to random sample surveys, the average yield of principal crops in the Community Development areas now exceeds the overall average yield for the whole country by about 20 to 25 per cent.

It is also estimated that the 11-lakh acres of land that have been reclaimed have added nearly 75-lakh maunds to the country's food production.

Besides, 157,000 acres of land have been planted with fruit trees and 388,000 acres brought under vegetable cultivation.

In the sphere of animal husbandry, till March, 2,563 Key Village Centres had been opened to improve the breed of the cattle, and 12,824 pedigree animals had been supplied. A pilot project for the eradication of rinderpest was also taken up in the Community Development areas lying south of the river Krishna.

The programme of community development includes house-buildings for the homeless. Some townships have been built in the community development blocks.

Nearly 245,000 birds of improved breed were also supplied to the villagers to encourage poultry-keeping. And about 30 poultry demonstration centres and 30 poultry development blocks have beem set up in rural areas.

Development of Inland fishery wealth of the country by stocking the water spreads with fingerlings of improved fishes has been another important aspect of the Programme in appropriate localities.

Road Construction.

Construction of roads has been an item for which the people's enthusiasm has been quite remarkable. Up to the end of March this year, 38,000 miles of *kachcha* and 6,029 miles of *pucca* roads were constructed and 22,000 miles of the existing roads were improved.

Welfare Activities.

The development of medical and health services has also gained considerable momentum. Priority is being given to curative services. Already 674 Primary Health Centres and 578 Maternity and Child Welfare Centres have come into existence. Under the scheme for the provision of safe water supply, 107,000 wells have been either constructed or renovated. During the period, 64-lakh yards of drains have also been constructed. Progress in rural housing is indicated by the 29,000 new and 3,302 model houses constructed up to March, 1956. More than 49,000 houses have been improved by renovation.

Educational facilities in the villages have been provided by opening nearly 15,000 new schools and the conversion of 6,968 ordinary schools into basic type schools. During the period under review, 41,000 Social Education Centres were set up and 996,000 adults made literate. The number of Community Recreation Centres and libraries rose to 99,000 and that of Information Centres came up to 763. A significant achievement has been made in the starting of people's own organisations like the Youth Clubs, Mahila Samaj, Farmers' Unions, etc. which now number about 76,000.

Since the ultimate success of the Programme will depend upon the extent to which the people themselves are able to take over planning and execution of work for their own development, more than 11,540 *Panchayats* and other statutory bodies and 24,829 non-statutory bodies, like Village Councils, Vikash Mandals, etc., have been set up. And nearly 41,000 village-leaders have been trained. About 33,000 new co-operative societies with 17-lakh new members have also come into being.

Work among women and children in the Community Development areas is also receiving due attention. Two pilot projects in this connection have already begun operating in Madhya Pradesh in Hoshangabad and Chikhli Blocks.

Trained Workers.

The implementation of the programme needs a band of workers who are infused with a new spirit, possess a new outlook and have received adequate training for the multifarious duties they are called upon to perform. The 48 special training centres which have been set up to provide the administration with the requisite trained village level personnel, have trained up, up to the middle of this year, 14,446 Village Level Workers (Extension) and 6,314 (Basic) Workers. More than one thousand officers have been trained at the three Block Development Officers' Training Centres. Another 1,710 Social Education Organisers received training at nine training centres meant for them. The Kasturba Gram Sevika Institute at Indore, the Shivaji Educational Society at Amaravathi and the 22 Home Science Wings of

Japanese method of rice cultivation has been introduced in community areas.

the Extension Training Centres are grooming the future Gram Sevikas. The Ministry of Food and Agriculture, in co-operation with the Reserve Bank, has already trained 39 Extension Officers in co-operation at its eight centres, and the Ministry of Commerce and Consumer Industry has provided training to 63 Extension Officers (Industries) at eight centres. Periodical seminars and study tours are notable features of the training Programme.

Employment Potential.

The Programme, which is expected to employ about three lakh people by the end of the Second Five-Year Plan, already employs about 84,000 persons of different categories.

Besides providing direct employment to 84,000 persons it is contrubuting indirectly to increased employment by expanding activity in various tertiary sectors. It is estimated that 4,01,000 people have been provided with part-time and 56,000 with full-time additional employment and, the benefits of the Community Development Programme extend to 5,253,000 rural families at present.

Nearly a threefold increase in the employment opportunities is contemplated through the encouragement of the cottage and small-scale industries in the Community Development areas during the Second Plan period. With this in view, 26 pilot projects have been started.

World-Wide Interest.

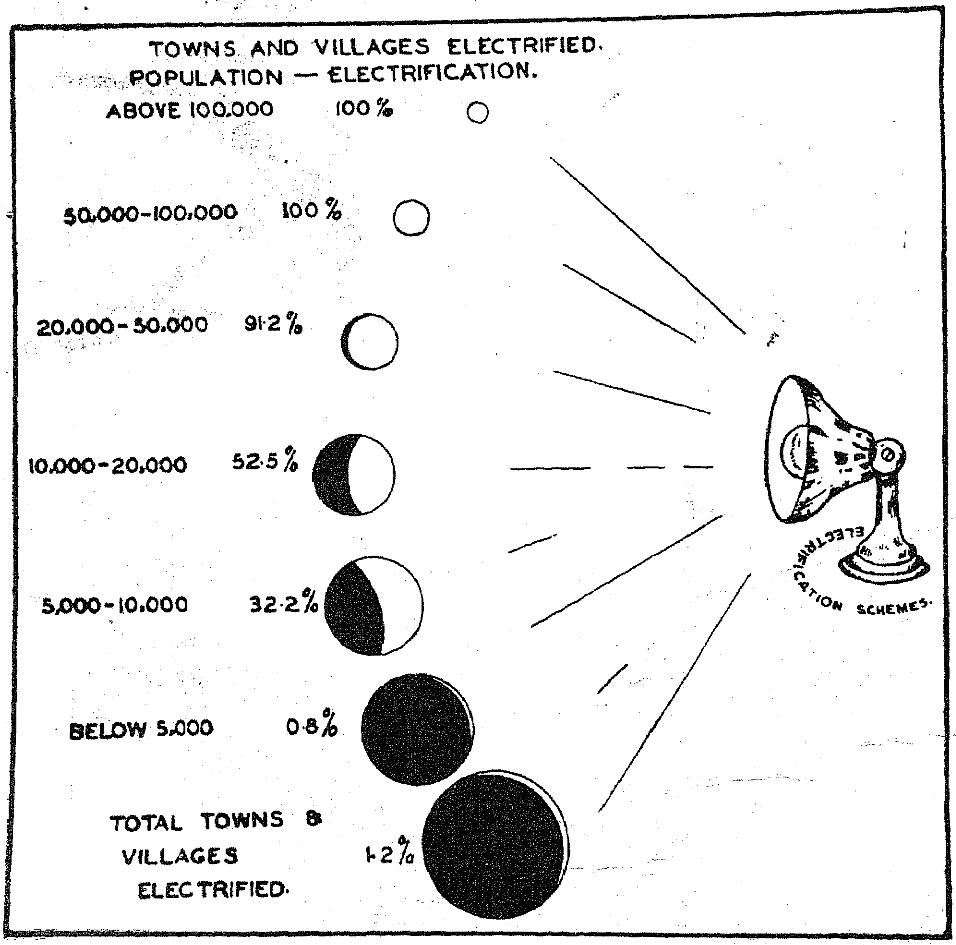
The success of the Programme of Community Development has by now evoked interest in countries far and near. Visitors, who have gone round the various development blocks and have acclaimed the achievements of the Programme with full throated praise, include high dignitaries like the heads of foreign States. Nearly a dozen countries including Burma, Ceylon, Afghanistan, Egypt and Philippines have sent teams of officials to study how India's methods and experience in this field could be profitably utilised by them. A few officers from six Middle East countries are, in fact, undergoing training at the Block Development Officers' Training Centre at Hyderabad at present.

Indonesia and Iran have drawn upon the experience of the Chief and the Secretary of the Community Projects Administration by inviting them to advise on the introduction of a similar programme in those countries.

Second Plan Programme.

An ambitious expansion of this Programme has been outlined under the Second Five-Year Plan. By the termination of the Second Plan period in 1961, the entire country is expected to be covered with the National Extension Service, and not less than 40 per cent of the N.E.S. Blocks will be converted into Community Development Blocks. A sum of Rs. 200 crores have been allocated in the Second Plan for extending the Programme to the remotest corner of the country so that 70 million families living in Indian villages might take part in the working and rejoice in the benefits of this Programme.

The recent elevation of the Community Projects Administration to a full-fledged Central Ministry, is indeed an indication of the importance which India's leaders attach to the Programme to attain the socialist pattern of society—the country's ultimate objective.



The Second Five-Year Plan provides Rs. 75 crores for Rural Electrification schemes which would electrify about 10,000 villages. The chart shows towns and villages already electrified by December 1955.

Facts and Figures

A sum of Rs. 89 crores has been provided in the Second Plan for the expansion of elementary education with emphasis on Basic Education.

Output of iron ore in India increased to 325,360 tons in July 1956, from 291,650 tons in June.

In 1955–56, India exported 30,862 tons of cashewnuts valued at Rs. 12·92 crores.

Nation's Wealth is in the People's Health

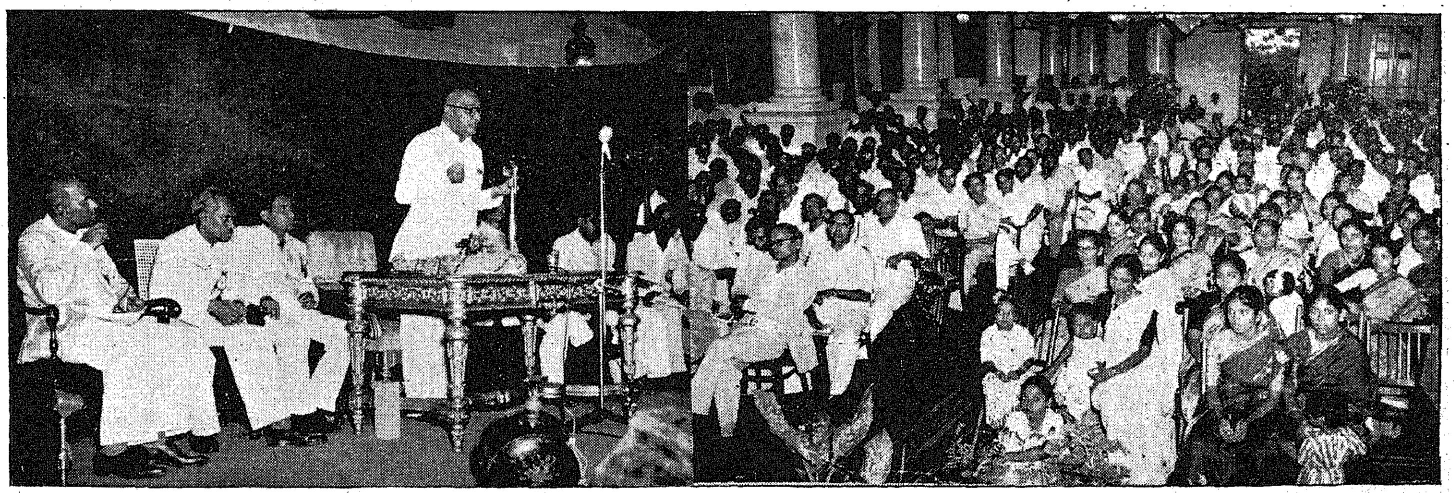
Promotion of Public Health through Community Action

DR. N. R. RAMAKRISHNAN

"Cleanliness is next to Godliness" is a well-known slogan. Cleanliness implies not only individual and household cleanliness but also cleanliness of all the places occupied by a community. The body is the temple of the spirit and consequently must be kept clean and pure. "*Sarvam Vishnu Mayam Jagad.*" God is omnipresent. So all places should be kept clean and tidy at all times. A community is made up of individuals and the individuals constitute the population. A family lives in its own house but the community as a whole require certain public places for common use. These are the tanks, wells, temples, hotels, schools, playgrounds, lodging houses, cinema houses, markets, buses and trains, etc. A village is made up of several houses and there will be rich, middle and poor class people in the same village. Those people who can afford will have spacious houses with compounds. Such people can also afford to have their own wells, latrines and manure pits in their compound. But there will also be an equal number of people who cannot afford to have such compound houses. All the same their health needs and wants are the same as the rich. Traditionally we take pride in the cleanliness of our own houses and daily we are meticulous in sweeping and scrubbing the floors of our own houses and courtyard. But what happens to the rubbish and other wastes formed in a house ? These are thrown on the roads and they rot. The poorer people also use common roads and open spaces to attend calls of nature. The human waste rot and disease germs causing Cholera, Typhoid, etc., thrive in them quickly. Flies sit and breed in waste ; flies do not discriminate rich and poor and they carry the disease germs from these decomposing waste to all the houses round about and thus epidemics of Cholera, Typhoid, etc., break out. The disease germs are also washed after the rains into the clean water courses. The surface grounds are also soiled and people walking barefooted get hook-worm disease. But you all know that wastes whether organic or inorganic are very valuable as a manure. From waste you can produce wealth *provided* you know how to do it. Wastes if thrown indiscriminately produce diseases. But if all the rubbish is collected and conserved properly and if the night soil is properly collected in pits and composted, you will be producing wealth and avoiding diseases. There are also waste waters from the households and these waters have to find a way outside if one has to keep his house clean. If they are let outside on the common road in Kutcha drains, the water stagnates there. The stagnant water breeds mosquitoes and mosquitoes are common sources of annoyance and danger to the community as a whole.

You are your brother's keeper.

The village tank is the one used by almost all people irrespective of caste or creed. One goes there to clean and free oneself from dirt. But imagine for a moment several others using the tank for the same purpose. Persons with diseases like leprosy, itches and septic wounds might have taken bath there before you. Also persons might have cleaned after defection in the same place. So instead of getting rid of all



The annual meeting of the Secretariat Association held at Rajaji Hall. Sri P. V. Cherian, Chairman, Legislative Council, presided.

your bodily dirt, you are likely to get disease germs on your body, if you are to use the water course. If the water is ingested you are also liable to get intestinal disorders. Again in a cinema house or school room or in a bus or train, one has to sit beside unknown persons. If those persons smoke or sneeze close to your body they will be transmitting the disease germs of Tuberculosis or cold to you if they are suffering from those diseases. Coffee houses are also sources of spread of diseases as cups, saucers and plates are common for all people whether healthy or sick. Thus one gets disease either through direct contact with the infected persons or through indirect contact by means of contaminated articles including floors, food, clothing, utensils, air and by arthopod and other animal vectors through bites.

Co-exist happily or Co-Suffer.

Hence vital problems affecting human health cannot be solved by individual efforts alone and public health work is essentially a team work job based on human and natural sciences. The moral is, an individual by oneself cannot isolate himself and lead a healthy life in this modern world in the midst of a community and the community as a whole either "co-exist" healthily and happily or co-suffer. A true public health service not only protects the health of the people as a whole but also gets the people themselves to participate in the protection of community health. The Public Health Department is essentially a common agent for all people. It guards zealously your health from invasion of disease germs. To succeed in its efforts it needs the active participation and co-operation of the community. The Department coordinates and enforces the work expected from each individual as a citizen. The state of healthiness or otherwise of the people, will naturally depend upon the extent of participation of the community in its own health programme. "Health is wealth" and physical prowess is the pre-requisite for every other kind of development. The community can participate in its own health programme through several ways. In our day-to-day life and activity certain standards of ethics and behaviour are prescribed and there is community sanction behind all these actions. In the same way a community has to set its own health standards and act according to it. Once a standard is set and accepted by a community action will necessarily follow. For example primary vaccination and routine periodical re-vaccination if accepted as a protective health measure by all communities, will eliminate small-pox completely from socieety. This does not cost anything to the community but it implies active participation in the programme organized by the Public Health Department. The participation may be through Gram Arogya Sanghs, organized for the protection of the health of the community. The Gram Arogya Sanghs should have its own President and Secretary and should meet periodically. One of its essential functions should be the study of the community health needs. It should raise resources and communicate with local Public Health Department on all health matters. Sanitary agents and public health workers should be appointed from among their members. The agents should initiate a dynamic health education programme. The programme should not only give information regarding health protective measures but should also explain why these measures are important for the health of the community. They should also create a desire for action amongst the people and demonstrate methods of doing things. The practical demonstration and the satisfaction derived from such action should stimulate interest and passion for further action. The health activity of a community could also be stimulated by the formation of Parent-Teachers Association. The Teachers will guide the parents on health matters.

What the Health Department does for you.

The initial instruction for the implementation of the above programmes will be given to you by the local officials of the Public Health Department. In this connection you will be interested to know what the Public Health Department does for you. It protects your water-supply. It advices on construction and maintenance of sanitary wells and water system. It safeguards waste disposal. Advice on construction and maintenance of septic tanks and other means of waste disposal is given. It works with producers of food and milk supplies, to assure safety for you, the consumer. Spurious admixture with essential articles of food, drugs and beverages such as milk, milk products, tea and oils are prevented by periodic sampling from sellers. It arranges distribution of free milk to growing children. It inspects lodging houses, cinema houses, coffee hotels, etc., to protect the health of those using them. It assists in insect and rodent control. It is carrying on a ceaseless campaign against malaria and plague. It protects yourself and your children against small-pox, cholera, tuberculosis and typhoid fevers by immunization. It investigates epidemics of communicable diseases and supervises control measures. Your Health Department works with your physicians. It provides laboratory services and distributes biologic products and drugs free, for control of diseases. Your Health Department also serves mothers and children. It helps expectant mothers to secure regular medical supervision and to learn how to take care of herself and her baby. Free delivery is conducted in the homes. It is a ready source of information and educational matters of all sorts on child health including nutrition, are given free. It provides speakers, pamphlets, motion picture films and exhibits for better health. Your Health Department works with your schools. It assists parents, school personnel and boys and girls in providing health examination for pupils and in securing correction of defects. It helps school administration in maintaining a healthful environment. It works with school, home and all community agencies to make the total school programme, for all boys and girls, a learning experience in good living. It is in short the clearing house where all the resources of the community are focussed, on making possible healthier and happier lives for all the people.

What we should do.

Some of the above health measures require material and labour for their execution and if free labour can be provided by the community it would greatly minimise cost and would accelerate the work. When Government has to provide only material and technical guidance, it can effect more improvements with the same financial resources. Safe water-supply, sanitary latrines and malaria control are urgent probelms in most of our areas. The labour required for the construction of tube wells, dug wells and bore hole latrines represents about half the total cost. Mosquito control require the

(*Continued on page* 31)

NOV 1958

Temple Architecture and Renovation : A Warning

It is a matter for gratification that the Madras Government have launched a State-wide programme of temple renovation work. A sum of Rs. 2 lakhs has been provided for the purpose in the last year's budget and again a lakh of rupees this year. From out of this fund, State grants are given to needy temples for renovation.

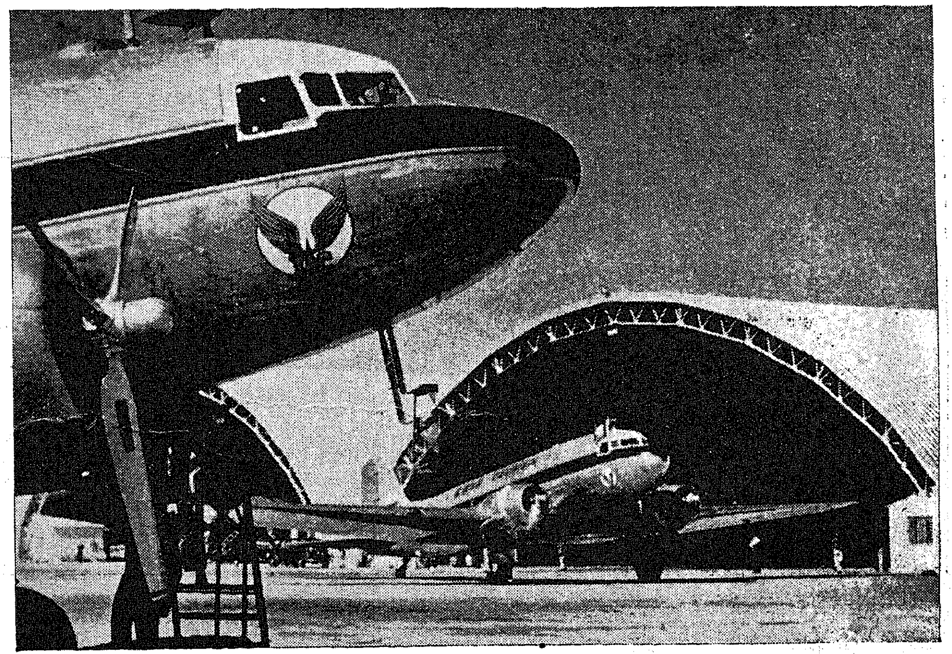
Temples are treasure-houses for our ancient art and culture, especially in the South. They are our national treasures and are to be preserved for our posterity. It is a welcome move that the Government have come forward to help religious institutions in the preservation of temple architecture. But a a note of warning is necessary in this connection, because in the name of renovations untold vandalism is being committed in several places. The question of scientific renovation presents a critical problem and it has to be solved, should we care to conserve our religious monuments.

The common defects in renovations are raising buildings for commercial purposes, converting temple approaches into bazaars, using of temple gopuras and mandapas as electric posts and godowns respectively marring their beauty and grandeur, tampering with features of archæological interest, melting or throwing away broken ancient icons and sculptures, indiscriminate white or colour washing and allowing oil incrustations over fine sculptured panels and figures, making additions and alterations in styles which do not merge with the original style, renovating vimanams and gopuras in faulty ways, and the like. I had occasion to refer to some of these defects on the floor of the Legislative Council. The remedy for stopping these defects is simple. Any kind of work in temples must be executed only by trained *stapatis* under the direction of specially qualified engineers well versed in our sacred architecture and also in South Indian archæology. Necessary provision for enforcing this should be made in the laws of the State.

With the State grant now coming in handy, several renovation works have been taken up in different parts of our State. Public donations for the purpose are also an encouraging feature. One such temple under renovation with State help was visited by our Minister for Religious Endowments the other day. He was particularly anxious to see the technique of modern renovation work. Tirupputkuzhi, the place which I refer to is a sacred Vaishnava Kshetra near Kancheepuram, the ancient capital of the Pallavas. The temple there being a poor one, the renovation works are planned to be carried out in the most effective and economical way and on strict lines of preservation, conservation and restoration and at the same time employing the most modern engineering methods. The renovation work was inaugurated by Sri M. Baktavatsalam, Minister for Agriculture.

By Sri T. PURUSHOTHAM, M.L.C.

The front gopuram is very dilapidated. A number of its lintels and beams have cracked. In the rear side of the temple, the whole of the west Patti-Mandapam is leaning forward with heavy cut-stone roof slabs coming out of their bearings. These are enough to frighten any modern engineer ; but knowing fully well how these works were executed in olden days, effective remedies based on modern engineering are proposed to be employed—for example : the cracks in the lintels and beams are to be reinforced with suitable steel and packed up to make each one a monolithic R.C.C. beam. All big cracks and crevices in the inside of the gopuram are to be gunnited. The leaning mandapam in the rear is proposed to be retained and improved by suitable R.C.C. works. The other ancient works in the temple are to be repaired and restored to their original condition keeping in view the ideal *that the architectural and archaeological features are not in any way interfered with.* This ideal should be there in all these renovation works.



Our civil aviation services carried approximately 23,498 passengers, 1,309,799 lb. of freight and 3,589,175 lb. of mail this year.

A.I.R. Tiruchirappalli

Rural Programmes for November 1956

Thursday, 1st November 1956—
Farm Forum : Discussion
Seenippattasu : Musical feature
Market rates and water level readings
Topical discussion ; weather report.

Friday, 2nd November 1956—
Nilachappadu : Sketch
Pattai Kelungal (Songs on Five-Year Plan)
Grama Patasalaiyil : Nanmanikkadigai : Exposition
Market rates and water level readings
Topical discussion ; weather report

Saturday, 3rd November 1956—
Sakuntalai : Play
'Women's Welfare in Madras State' : Talk in Tamil arranged by the Department of Women's Welfare, Madras.

Saturday, 3rd November 1956—*cont.*
Weekly review of market rates
Market rates and water level readings
Topical discussion ; weather report

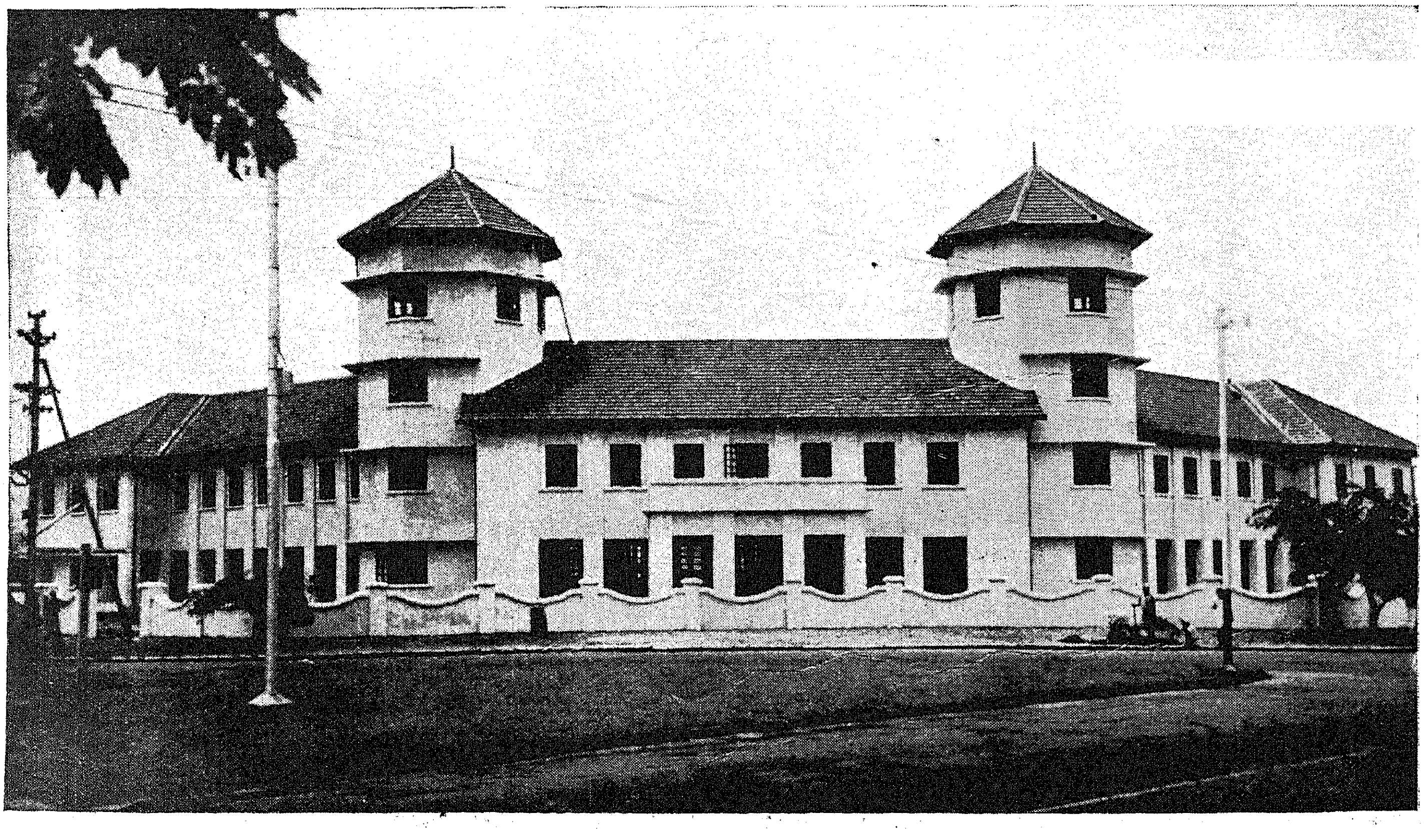
Sunday, 4th November 1956—
Paruthiyai Thakkum Puchigal : Discussion
Grama Kalakshepa Mandapathil : Kannappa Nayanar : Discourse by A. S. Ramakrishnan.
Market rates and water level readings
Topical discussion : weather report

Monday, 5th November 1956—
C. R. Das : Feature
Folk Art : Karaha Attam
Market rates and water level readings
Topical discussion : weather report

Tuesday, 6th November 1956—
Farm Forum : Discussion—Participant : B. A. Subbian.
Gnana Chuvadi : Isai Nigazhchi
Thozhil Nanayam (2) Thangavelai Muthuswami : Serial skit.
Market rates and water level readings
Topical discussion ; weather report

Wednesday, 7th November 1956—
Listeners' Letters
Poocharam : Songs on Lord Buddha
Araichikkoodam (The latest in research) : Discussion on subjects of interest and use to farmers.
Market rates and water level readings
Topical discussion : weather report

Thursday, 8th November 1956—
Farm Forum : Duscussion—Participant : N. Mahalinga Iyer.



An exterior view of the new Administrative Office of the Cochin Customs Department, which was formally opened by Shri Arun Chandra Guha, Union Minister for Revenue and Defence Expenditure, on September 29.

The Office is situated at the northern end of Willingdon Island overlooking Ernakulam Town on the east and Fort Cochin on the west across the blue lagoons.

Thursday, 8th November 1956—*cont.*
Folk Ballad : Raja Desingu—Part V
Namadu Dittam (5) Village and Small Industries : Discussion.
Market rates and water level readings
Topical discusion : weather report

Friday, 9th November 1956—
Bhoomidanam : Feature
Irulil Oli : Serial feature on Gandhiji's life by Turaivan.
'Peran Thirtha Pagaimai' : Play by S. Shyamala Devi.
Market rates and water level readings
Topical discussion : weather report

Saturday, 10th November 1956—
Kathaigal Solli : Song
The Adult Literacy Class : Tirukkural—Pugazh (Kural Nos. 237 and 238).
Tannaimarundu : Song
Kashmir : Gardens—Discussion
Weekly review of market rates
Market rates and water level readings
Topical discussion : weather report

Sunday, 11th November 1956—
Siruthaniya Abhivridhi : Discussion
Varna mettu : Folk tunes
Kozhippannai : Skit
Market rates and water level readings
Topical discussion and weather report

Monday 12th November 1956—
Oil cakes for cattle : Discussion
Folk Art : Lavani
Market rates and water level readings
Topical discussion ; weather report

Tuesday, 13th November 1956—
Farm Forum : Discussion—Participant : D. A. Sivasubramania Pillai.
Folk songs
Engal kalathil (3) Sangitam Krishnaswami Serial skit
Market rates and water level readings
Topical discussion ; weather report

Wednesday, 14th November 1956—
Blood pressure : Discussion
Folk Art : Kaichilambu Kacheri : Participants by K. C. Ekambaram and K. T. Tirukalathi.
Gramapattum katchiyum
Market rates and water level readings
Topical discussion ; weather report

Thursday, 15th November 1956—
Farm Forum : Discussion—Participant : A. Natarajan
Folk Ballad : Raja Desingu—Part IV
Namadu Dittam (6) Prohibition : Discussion
Market rates and water level readings
Topical discussion ; weather report

Friday, 16th November 1956—
Ani Alangaram (5) Jadai Billa—Musical feature
The Village Welfare Association : Discussion
Kali Vakku : Play
Market rates and water level readings
Topical discussion ; weather report

Saturday, 17th November 1956—
Villinai Otha Puruvam : Song
The Adult Literacy Class : Tirukkural—Pugazh (Kural Nos. 239 and 240)
Sudantira Suriyan : Song
'Guide to mothers' : Talk in Tamil arranged by the Director of Medical Services, Madras.
Weekly review of market rates
Market rates and water level readings
Topical discussion ; weather report

Sunday, 18th November 1956—
Payarugal Patrakurai : Discussion
Sudar Oli : Feature
Maganwadi Choola : Discussion
Market rates and water level readings
Topical discussion ; weather report

Monday, 19th November 1956—
Lice in Poultry : Discussion
Folk Art : Kuravan Kurathi darkkam
Market rates and water level readings
Topical discussion ; weather report

Tuesday, 20th November 1956—
Farm Forum : Discussion
Gnana chuvadi : Isai Nigazchi
Illaracholaiyil (2) Puliyum Pasuvum—Serial skit
Market rates and water level readings
Topical discussion ; weather report

Wednesday, 21st November 1956—
Listeners' Letters
Poocharam : Songs on Lord Buddha
Inda Pattai Kettanayya ?
Market rates and water level readings
Topical discussion ; weather report

Thursday, 22nd November 1956—
Farm Forum : Discussion
Folk Ballad : Raja Desingu—Part VII
Namadu Dittam (7) Basic Education: Discussion
Market rates and water level readings
Topical discussion ; weather report

Friday, 23rd November 1956—
Folk song lesson
Irulil Oli : Serial facture on Gandhiji's life
The Village Women's Forum : Discussion

Friday, 23rd November 1956—*cont.*
Ammanai
Market rates and water level readings
Topical discussion ; weather report

Saturday, 24th November 1956—
Thenmalarcholaiyile : Song
The Adult Literacy Class : Turukkural—Aruludaimai (Kural Nos. 241 and 242)
Gramangal valamperave : Song
Radio Interview : Karikai virpavar—Bheti
Weekly review of market rates
Market rates and water level readings
Topical discussion ; weather report

Sunday, 25th November 1956—
Grama Panchayat : Maram Vettina Vazhakku : Feature by N. Vasudev
Varna Mettu : Folk tunes
Market rates and water level readings
Topical discussion ; weather report

Monday, 26th November 1956—
The fish-pond : Discussion
Grama Nataka Sabaiyil : Parimalakanthi : Play by 'Maran'
Market rates and water level readings
Topical discussion ; weather report

Tuesday, 27th November 1956—
Farm Forum : Discussion
Folk songs
Kelikoothu : Play
Market rates and water level readings
Topical discussion ; weather report

Wednesday, 28th November 1956—
Festivals and Epidemics : Discussion
Folk Art : Chakkai Attam
Questions on the air : Discussion on subjects of rural interest specially those relating to Five-Year Plan.
Market rates and water level readings.
Topical discussion ; weather report

Thursday, 29th November 1956—
Farm Forum : Discussion
Folk Ballad : Raja Desingu—Part VIII
Namadu Dittam (8) Tribal Welfare : Discussion
Market rates and water level readings
Topical discussion ; weather report

Friday, 30th November 1956—
Sothidappuli : Play
Decimal coinage : Discussion
Onre Kulam : Feature
Market rates and water level readings
Topical discussion ; weather report

Book Reviews

MY DEAR CHILD

EDITED *by* ALICE M. BARNES

Navajivan Publishing House, Ahmedabad.

Price : Rupee one and annas eight.

The part that letters play in Gandhian literature is too significant to be missed, too inspiring to be ignored and too vast to be traversed in the twinkling of an eye. The book gives far more than the fascinating title promises. It is not merely a collection of casual epistolary writings. These letters were written mostly in the years 1917 to 1932 by Gandhiji to Esther Faering, who first came to South India in 1916 as a member of the staff of the Danish Missionary Society, and who had the opportunity to spend a few days at the Sabarmati Asram with Gandhiji. Within a short space of time, she developed into an ardent admirer of the Mahatma, whose influence on her was continual and profound.

These one-hundred and twenty-nine letters (and the twelve addressed to the children of this lady) deal with personal, domestic, national and international problems, and though laconic, afford us deep glimpses of the spiritual aspect of the Mahatma's life. As is rightly observed in the preface " his love for the individual, his great affection for and understanding of little children, his deeply religious mind—all are revealed in these letters."

Srimathi Esther Menon richly deserves our thanks for having made this priceless and edifying treasure available to the world at large. An informative foreword by Dr. D. S. Ramachandra Rao and a very good introduction by the editor enhance the value of this fine publication.

GANDHI AND MARX

By K. G. MUSHRUWALA

Navajivan Publishing House, Ahmedabad.

Price : One rupee and eight annas.

In the present world, which is seriously engaged in the stupendous task of rebuilding itself, nothing can be a more engaging study to us than that of a comparison between the ideologies of Gandhi, the great soul and Marx the great thinker. The difference between Gandhi and Marx is too profound to be expressed by simple equations. It calls for detailed, critical examination and elucidation, which Mushruwala sets about to accomplish within a compass of hundred and odd pages of the book entitled " Gandhi and Marx". There was, however, a common point, as the author tells us, between the two protagonists—*viz.*, " the extreme concern of both for the suppressed and the oppressed, the resourceless and the ignorant, the dumb and starving section of humanity."

Marx was a monobasist like Gandhiji, but according to the latter, the basic principle is life and not matter. To Marx's mind, it was just the reverse. To put it briefly, Gandhism is incompatible with communism. The difference between Gandhism and Marxism is indeed vast, and vaster still is it between Gandhism and 'unbridled capitalistic feudal and caste orders.'

Mr. Mushruwala has dwelt at length on that difference and has dealt with most of the salient and noteworthy aspects of both the Gandhian and the Marxian doctrines. He has, though briefly, explicated the Gandhian way of looking at life and its problems, and has reasonably deduced pertinent conclusions like the one that the difference between Gandhi and Marx can hardly be expressed by such simple equations as " Gandhism is communism *minus* violence " or " Gandhism is Communism *plus* God."

The book written in chaste, elegant and effortless style, gives a succinct but enlightening account of Gandhism and Marxism, and the similarities and dissimilarities between the two. It has useful appendices and index and is embellished by a lengthy introduction by Vinobha Bhave (thirty four pages) which is scintillating with erudition and a dexterity to delve threadbare into the theme with dispassionate interest.

A COMPASS FOR CIVILIZATION

By RICHARD B. GREGG

Navajivan Publishing House, Ahmedabad.

Price : Rupees Three.

Man does not live by bread alone. There is a constant and unquenchable thirst in him for something, in the absence of which life is incomplete and meaningless to him. He wants to know, understand, and import a meaning to his life. This thirst is eternal and universal, and attempts to slake it are being made everywhere with unabated ardour. Without a certain pattern or order of thoughts and feelings and meanings by which human beings are sustained, life does not make sense or any lasting value.

The book " A Compass for Civilization " is an elaborate attempt to discover such a pattern. It is divided into two parts, of which the first is broadly entitled 'A frame of understanding' and the second one, 'The teachings of Jesus'.

In the first part the author begins with explaining what assumptions are, and the no mean part they play in the acquisition of knowledge. Such intriguing and vexed topics as what is real, the nature of the self, symbols and ritual, and subjects inseparably allied with them are treated in detail. He discusses a point of view towards life and seeks an understanding of reality and of ways of approaching it and succinctly touches upon the deeply disturbed and distressing state in which the individuals and the nations find themselves entangled to-day. Having done this, the author proceeds to tell us what our compass and guide for civilization should be.

The second section of the book is devoted to a discussion of the teachings of Jesus—" Without much discussing what is generally called Christianity, the teachings and doctrines of the Churches "—In the course of his delineation of the nature of the Kingdom of God, Mr. Gregg points out that the kingdom of God does not refer to a present or future political system or ordering of society. The implication of " His righteousness ", according to him, is that " society must be controlled by spiritual principles and that all institutions, their activities and mutual relationships and all the details of social, economic and political life should have a metaphysical basis ". And he has briefly discussed the way to do this.

Although the author, in his introduction, says that he owes much of the book to the thoughts of sensitive and wise people of many cultures and many epochs, his own contribution is immense. In this book wherein ideas

(*Continued on page* 32)

Rural Electrification

Villages Electrified during August 1956

Serial number and name of village. (1)	*Taluk.* (2)	*District.* (3)
Pykara Electricity System.		
1 Chinnakoduveri	Gobichettipalayam.	Coimbatore.
2 Periakoduveri	Do.	Do.
3 Odderpalayam	Do.	Do.
4 Tahiyur	Do.	Do.
5 Chinnarayampalayam	Do.	Do.
6 Puttappanaickenpalayam	Do.	Do.
7 Ellur	Do.	Do.
8 Venkatapuram	Do.	Do.
9 Kaliyur	Do.	Do.
10 Giddampalayam	Palladam	Do.
11 Vadugapalayam	Do.	Do.
12 Ammapalayam	Erode	Do.
13 Sadayampatti	Do.	Do.
14 Periakarakkampalayam	Do.	Do.
15 Sakkilinatham	Do.	Do.
16 Velliampatty	Do.	Do.
17 Karinampatty	Do.	Do.
18 Kattupati	Do.	Do.
19 Thatipalayam	Avanashi	Do.
20 Sangampalayam	Do.	Do.
21 Attikatupalayam	Do.	Do.
22 Alathur	Do.	Do.
23 Venkatapuram	Do.	Do.
24 Bommanaikanpalayam	Gobichettipalayam.	Do.
25 Pudukkarai	Do.	Do.
26 Thotipalayam	Do.	Do.
27 Kongarapalayam	Do.	Do.
28 Koilpalayampudur	Do.	Do.
29 Thairpallainpudur	Do.	Do.
30 Velliampalayam	Do.	Do.
31 Pallapalayam	Udamalpet	Do.
32 Kariyagoundenpalayam	Gobichettipalayam.	Do.
33 Venkatagoundenpudur	Do.	Do.
34 Maranapalayam	Do.	Do.
35 Kandisalai	Do.	Do.
36 Kavalipalayam	Do.	Do.
37 Koppampalayam	Do.	Do.
38 Kondampatti	Pollachi	Do.
39 Manakampatti	Do.	Do.
40 Kallipattipudur	Do.	Do.
41 Sitheruvu	Dindigul	Madurai.
42 Nallur	Do.	Do.
43 Kondamanaikenpalayam	Do.	Do.
44 Kuppanaickenpatti	Do.	Do.
45 Devarappampatti	Do.	Do.
46 Chinnagoundenpatti	Do.	Do.
47 Old Batlagundu	Nilakottai	Do.
48 Oddapalayam	Dharapuram	Coimbatore.
49 Kurumbapatti	Palani	Madurai.
50 Muthalapuram	Periakulam	Do.
51 Panamathivampatti	Do.	Do.
52 Kondappagoundenvalasu	Palani	Do.
53 Nathigoundenpudur	Coimbatore	Coimbatore.

History of the Scientific

(*Continued from page* 19)

Since this is a universal history, it must obviously be a product of international co-operation, and present, through qualified exponents, the main tendencies of all major philosophical and religious currents of thought. More than a hundred and fifty correspondents in some fifty countries are working in collaboration with the Commission responsible for the undertaking. One or two individual historians, who will make use of the material provided by a large number of specialists, have been selected to edit each of the volumes. The whole production will then be made ready for publication by Professor Ralph H. Turner, Yale University, before coming before the Commission for final approval. When the History appears in print, it will be published in English, French and Spanish, followed in all probability by a shortened version in a single volume. Editorial responsibility rests entirely with the International Commission.

Quarterly Journal.

It is interesting to note that in the course of its preparations for this work the Commission has been led to publish a quarterly journal, the "Journal of World History" under the editorship of Professor Lucien Febvre, Institut de France. This journal publishes papers produced by various contributors to the History, and working documents as well as the comments and criticisms that follow them. The welcome the journal has found among learned societies, in university circles, and with the general public is abundant evidence of its success. The widespread discussion Unesco is anxious to see on the various subjects handled in the "History of the Scientific and Cultural Development of Mankind" has thus already begun.

Continuation of the work on the History figures as an important item in the cultural activities section of Unesco's draft programme for 1957–58 which will be before the coming General Conference of the Organisation in New Delhi next November.

Serial number and name of villages. (1)	*Taluk.* (2)	*District.* (3)
Pykara Electricity System, Coimbatore—cont.		
54 Panambar	Mangalore	South Kanara.
55 Baikambadi	Do.	Do.
56 Erimayar	Palghat	Malabar.
57 Kothanakkarai	Avanashi	Coimbatore.
58 Poosaripalayam	Do.	Do.
59 Pasukkuttai	Avanashi	Do.
60 Thoppampattianur	Do.	Do.
61 Srinivasapuram	Do.	Do.
62 Pothiampalayam	Palladam	Do.
63 Kasinanjaigoundenpudur	Do.	Do.
64 Thoraihatty	Ooty	Nilgiris.
65 Hosalhatti	Do.	Do.
66 Oormila	Do.	Do.
67 Nillimand	Do.	Do.
68 Kolacombai	Do.	Do.
69 Do.	Coonoor	Do.
70 Manjathalai	Do.	Do.
71 Thannirpandalpalayam	Avanashi	Coimbatore.
72 Pachandy	Mangalore	South Kanara.
73 Paduseddi	Do.	Do.
74 Edayarpalayam	Coimbatore	Coimbatore.
75 Uppatti	Ooty	Nilgiris.
Mettur Electricity System.		
1 Mannampalli	Karur	Tiruchirappalli.
2 Nerur North	Do.	Do.
3 Semangalam	Tirukoilur	South Arcot.
4 Chinnasevaiali	Do.	Do.
5 Anathur	Do.	Do.
6 Kilthanialampatty	Do.	Do.
7 Elandampatty	Cuddalore	Do.
8 Alachigudi	Vridhachalam	Do.
9 Ballakurichi	Tiruchengode	Salem.
10 Shenbagamadevi	Do.	Do.
11 Mangalam	Do.	Do.
12 Venkatesapuri	Do.	Do.
13 Mallasamudram East	Do.	Do.
14 Pavalathanur	Omalur	Do.
15 Keerapapambadi	Do.	Do.
16 Nathamedu	Namakkal	Do.
17 Vadakadu	Salem	Do.
18 Agrahara Nattarmangalam	Rasipuram	Do.
19 Ariyali	Arni	North Arcot.
20 Ananthapuram	Do.	Do.
21 Pallithangal	Do.	Do.
22 Painkinar	Cheyyar	Do.
23 Irungal	Do.	Do.
24 Mamandur	Arkonam	Do.
25 Reddivalam	Do.	Do.
26 Agavalam	Do.	Do.
27 Nellorepet	Do.	Do.
28 Thenmabakkam	Do.	Do.
29 Karungalai	Vellore	Do.
30 Thallapalli	Do.	Do.
31 Agaram	Do.	Do.

(*Continued from page* 8.)

officer has since completed his work and has sent his report. His recommendations are being examined by the Government. The question as to how the full benefits of the Industrial Disputes Act can be extended to the workers in the beedi industry is also receiving attention.

One Industry—One Union.

When we met last, I drew your attention particularly to the question of rival labour unions. The existence of such unions in the same industry is detrimental to the interests of workers and this was also the general opinion of the members expressed at the last meeting. To meet this problem a draft bill—The Madras Recognition of Trade Unions Bill—has been prepared and this has been included specially in the agenda of this meeting. The bill provides for the recognition of a reprensentative trade union for each establishment or for a specified industry in a specified local area for the purpose of bargaining collectively with the managements on matters concerning their employees. A copy of the Bill has been circulated to you already. I am sure that your views on the draft bill will be of very great help in its further consideration.

Under the Colombo Plan, training facilities are afforded in industrially advanced countries to the officers of the State and Central Governments. One of the Factory Inspectors from this State was deputed under the above Plan for training in Factory Inspection in the United Kingdom.

I may also mention here that I had the privilege of leading the Indian Delegation to the 39th Session of the International Labour Conference held at Geneva in June 1956. Certain important subjects such as vocational training in agriculture, welfare facilities for workers, forced labour, weekly rest in commerce and offices were discussed at the conference.

The reorganization of States will take effect from the 1st November 1956. This is, therefore, the last meeting at which our friends from the Malabar and South Kanara districts will be present in our midst. We will be losing their valuable advice in our future deliberations. We wish them every success in their new States.

Serial number and name of villages. (1)	*Taluk.* (2)	*District.* (3)
Mettur Electricity System—cont.		
32 Chetpet	Polur	North Arcot.
33 Palampet	Do.	Do.
34 Kapilambadi	Gingee	South Arcot.
35 Agaram	Chengam	North Arcot.
36 Pallavalli	Tirupathur	Do.
Papanasam Electricity System.		
1 Nagamalai–Pudukottai	Madurai	Madurai.
2 Andarkottaram	Do.	Do.
3 Katavanendal	Do.	Do.
4 Nakkalpatti	Tirumangalam	Do.
5 Madharai	Do.	Do.
6 Thummagundu	Do.	Do.
7 Katchaikatti	Nilakottai	Do.
8 Ramayanpatty, hamlet of Katchaikatti.	Do.	Do.
9 Arunachalapuram, hamlet of Pallapatty.	Do.	Do.
10 Kandappakottai, hamlet of Kullalakundu.	Do.	Do.
11 Muthulingapuram	Sattur	Ramanathapuram.
12 Athipatty	Do.	Do.
13 Govindanallur	Do.	Do.
14 Alagankulam	Ramanathapuram.	Do.
15 Athikulam–Sengulam	Do.	Do.
16 Pullukattuvalasai	Tenkasi	Tirunelveli
17 Iyyappanadanpatty	Do.	Do.
18 Chettiyur	Do.	Do.
19 Panaiyadipatti	Do.	Do.
20 Pananchandiyur	Do.	Do.
21 Vellumayeludanpatti	Do.	Do.
22 Madithrukkudayanur	Do.	Do.
23 Konavillai	Do.	Do.
24 Kottaiyur	Do.	Do.
25 Gurukkalmadam	Do.	Do.
26 Santhithope	Do.	Do.
27 Mellur	Do.	Do.
28 Chidambarapuram	Do.	Do.
29 Mangalapuram	Do.	Do.
30 Pudukudi	Do.	Do.
31 Achanpatti	Do.	Do.
32 Kambaneri	Do.	Do.
33 Karadikulam	Do.	Do.
34 Mylappapuram	Ambasamudram	Do.
35 Vellur Kasba	Srivaikuntam	Do.
36 Mavidupannai	Tiruchendur.	Do.
Madras Electricity System.		
1 Alagusamudram	Chingleput	Chingleput.
2 Chunampet	Madurantakam	Do.
3 Ellappanaickenpettai	Tiruvallur	Do.
4 Erayur	Do.	Do.
5 Indalur	Madurantakam	Do.
6 Kadambur	Do.	Do.
7 Karunagaracheri	Sriperumbudur	Do.
8 Koduvalli	Tiruvallur	Do.
9 Madipakkam	Saidapet	Do.

(*Continued from page* 5)

of the Project is that the main work of the dam construction, pick-up weir and excavation of Main Canal and distributory systems, have all been taken up simultaneously together with the preliminaries like construction of buildings for officers and staff, construction of the road and the bridge below the dam, etc. Usually these items take about a year. In this case, by combining the main work with the preliminaries, nearly a year has been saved in the total construction period. And it is hoped to complete the Project in all respects well ahead of the scheduled date of December 1957.

The project is estimated to cost Rs. 289 lakhs. Out of this Rs. 100 lakhs have already been spent since the inception of the works in October 1954. The major portion of the Project is scheduled to come up before the 1957 irrigation season when the semi-arid North and South Arcot districts, which will soon start receiving irrigation supplies with the completion of the anicut, will reap all the benefits of the project. The development of the full ayacut with a total additional yield of 8,000 tons of rice will contribute probably to the rise in employment and earning power of the local population. •

—*Bhagirath.*

(*Continued from page* 24)

actual services of a large number of men for spraying insect killing drugs. You could extend your services and co-operation to accomplish valuable and beneficial schemes.

Health is the basis for all other developments, ethical, economic, artistic and spiritual. Health is a positive state of physical, mental, social and economic well being. "*Noyatra Vashvu Kuraivatra Selvam.*" The Public Health Department is genuinely interested in your welfare. With communities own efforts and with "learning situation" arranged by the Public Health Department, it is possible to change attitudes and practices relating to personal, family and community health and to create better interest towards social and preventive aspects of public health. It is up to the community to approach the problem with faith in thought, wisdom in words, courage in deeds and service in life to make India healthy, happy and prosperous.

Serial number and names of villages. (1)	Taluk. (2)	District. (3)
Madras Electricity System—cont.		
10 Magaral	Tiruvallur	Chingleput
11 Mettukuppam	Kancheepuram	Do.
12 Mogappair	Saidapet	Do.
13 Muthuvedu	Kancheepuram	Do.
14 Nandivaram	Saidapet	Do.
15 Pagalmedu	Tiruvallur	Do.
16 Pathur	Madurantakam	Do.
17 Perambakkam	Kancheepuram	Do.
18 Pudupattu	Madurantakam	Do.
19 Pudur	Tiruvallur	Do.
20 Pulipurakoil	Madurantakam	Do.
21 Ramancheri	Tiruvallur	Do.
22 Ramapuram	Do.	Do.
23 Sankarampadi	Arkonam	Do.
24 Sembakkam	Saidapet	Do.
25 Sembedu	Tiruvallur	Do.
26 Singaperumalkoil	Chingleput	Do.
27 Thandamedu	Tiruvallur	Do.
28 Thenneripattu	Madurantakam	Do.
29 Thottikalai	Tiruvallur	Do.
30 Tirupporur	Chingleput	Do.
31 Velacheri	Saidapet	Do.
32 Venkatapuram	Sriperumbudur	Do.
33 Vilanganoor	Madurantakam	Do.
34 Vishar	Kancheepuram	Do.
35 Vellivalam	Do.	Do.

Facts you must know

Tea consumption in India increased to 206 million lb. in 1955–56 compared with 183 million lb. on 1954–55.

Indian tobacco is exported to 32 countries and earns a foreign exchange worth about Rs. 12 crores a year.

Loans amounting to about Rs. 6·91 crores were sanctioned by the Industrial Finance Corporation during the period April 1955 to August 1956.

(*Continued from page* 28)

and thoughts are so well dovetailed, a sense of logic and clear thinking is throughout perceptible.

Mr. Gregg does not claim to persuade any one to his beliefs but despite this disclaimer, portions where the reader feels like agreeing with his views are not few. Some of his opinions may seem rather dogmatic, but they do not in any way dull the brightness of this highly thought-provoking and excellent contribution towards philosophic investigation.

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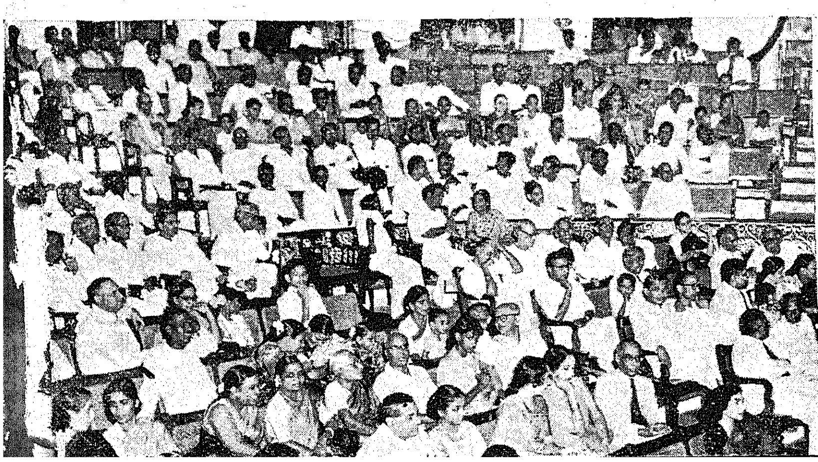

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